

Subject Index to Volume 42

A

Acetylcholine

effects on spinal resistance-sized small arteries, H2217
and forearm blood flow at exercise onset and recovery, H2388
microdialysis, in conscious rat, H2850
reentrant waveform instabilities induced by, in canine right atrium, H356
in vasodilation triggered by motor nerves, H156

N-Acetylcysteine

inhibition of cytokine-induced E-selectin and VCAM-1 expression, H817

Actin cytoskeleton, see Cytoskeleton

Action-potential clamp

in guinea pig atrial cells, H1745
in isolated rabbit ventricular cells, H1
Action potentials
see also **Electrophysiology**
cardiac, in dog, H1096
duration
in intact heart, H1205
in isolated rabbit ventricular cells, H1
restitution, in intact heart, passive electrical properties during, H1205

Activator protein 1

and AT₁ receptor gene expression in vascular smooth muscle cells, H655

Adenine nucleotide translocator

expression, and maturation changes in sheep heart, H1977

Adenosine

cardioprotection, in ischemia-reperfusion, H1677
and coronary artery membrane potential, H2687
and coronary autoregulation, H1299
effects on nitric oxide synthesis, in rat cardiomyocytes, H59
levels, during coronary occlusion, H945
in norepinephrine-induced coronary vasodilation, H557
priming effect on ATP-sensitive potassium currents in cardiomyocytes, H1637

Adenosine 3',5'-cyclic monophosphate

and carbon monoxide production, in vascular smooth muscle, H317
and cardiac electrophysiology, H2539
mediation of α_{2D}-adrenergic receptor gene expression in vascular smooth muscle, H85
and nitrite production by cardiomyocytes, H59

Adenosine 5'-diphosphate

endothelial-mediated dilation of cerebral arteries by, H1472

Adenosine receptors

A₁
cardioprotective function in prolonged simulated ischemia, H501
in coronary artery, H2687
A_{2A}, in coronary artery, H2687
A_{2B}, in coronary artery, H2687
A₃, cardioprotective function in prolonged simulated ischemia, H501

in late preconditioning against myocardial stunning, H1324
in protein kinase C-mediated preconditioning of cardiomyocytes, H847

Adenosine 5'-triphosphate

endothelial-mediated dilation of cerebral arteries by, H1472
extra- and intracellular, in endothelium-dependent regulation of cerebrovascular tone, H878
extracellular, effects on cardiac muscle, H1347

mass transfer in blood vessel wall, H464

Adenovirus

as gene transfer vector, H2091
for endothelial nitric oxide synthase, H265

Adenylyl cyclase

activity, in coronary artery, H2687
expression, during development of heart failure, H707
isoform, and vasopressin enhancement of cAMP stimulation in vascular smooth muscle cells, H971

Adhesion biology

of endothelial cells, H2396

Adhesion molecules, see Selectins

α-Adrenergic receptors

α₁
and inotropic responses of neonatal rat hearts, H1113
and ischemic preconditioning of human myocardium, H902
α₂
in A5 and A6 noradrenergic cells, H2290
stimulation, in NOS-inhibition hypertension, H2756
α_{2D}, gene expression, in vascular smooth muscle, CRE-like response element and, H85
vasoconstriction induced by, reduction of coronary flow oscillations, H2746

β-Adrenergic receptors

β₁, in regulation of ion channels in cardiomyocytes, H1669

β₂
actions in adult cardiomyocytes, H1044

modulation of cardiac excitation-contraction coupling, H1611
in regulation of ion channels in cardiomyocytes, H1669
functional, in cutaneous vasculature, H1038

stimulation, and myocardial contractility in mouse, H1283

in vascular capacitance response to carotid baroreceptor activity, H1713

Age

and cardiopulmonary interactions during standing, H2128

Aging

aortic dynamics in, H96
and blood pressure, in women, H777
endothelial dysfunction with, markers of, H1941
heart rate variability and, H1841
and high-energy phosphates in myocardium, H418

and left ventricular function and remodeling after myocardial infarction, H2652

Albumin

transport, in skeletal muscle ischemia-reperfusion, H303

Aldosterone

in heart failure-prone rat, H228

Alkalization

and adult ventricular myocyte contractility, H1044

Altitude

high, and cardiac expression of atrial natriuretic peptide, H411

Aminoguanidine

inhibition of inducible nitric oxide synthase, and immune-mediated myocardial dysfunction, H28

α-Amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptors

spinal, in episodic hypertension in conscious spinal rat, H1266

4-Aminopyridine

and ionic currents, in cardiomyocytes, H1

AMPA receptors, see α-Amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptors

Anesthetics

effects on nitric oxide and endothelium-derived hyperpolarizing factor in microcirculation, H618

Angiogenesis

gene-targeting studies, H2091
hypoxia-induced, vascular endothelial growth factor in, H628
with ischemia after femoral artery occlusion, H1255

Angiotensin-converting enzyme

aging-induced changes in, H1941
in cardiac angiotensin II formation, species considerations, H1769
cardiac expression, in volume overload-induced cardiac hypertrophy, H641
in cardiac metabolism of bradykinin, H2263

Angiotensin-converting enzyme inhibition/inhibitor

cardioprotection by, H2263
effects on heat shock protein expression in hypertrophied hearts, H526
inhibition of cardiac hypertrophy, bradykinin-NO pathway in, H2659
in volume overload-induced cardiac hypertrophy, H641, H961

Angiotensin II

see also **Renin-angiotensin system**
cardiovascular actions

in heart failure, H2664
peripheral and central, separation of, H2620

and dietary sodium supplementation, synergistic vascular effects, H1275

formation, from ACE and chymase, species considerations, H1769

inhibition, and ventricular remodeling in pressure-overload hypertrophy, H1824

- Angiotensin II (continued)**
response to, in uterine arcuate artery, during gestation and postpartum, in rat, H1148
- Angiotensin II receptors**
 AT_1 , promoter, PKC-dependent regulation of, in vascular smooth muscle cells, H655
- Antioxidants**
and endothelial dysfunction in smokers, H1644
inhibition of agonist-induced monocyte adhesion to endothelial cells, H817 and late preconditioning against myocardial stunning, H1651
- Aorta**
adaptation
to aging, H96
to hypertension, H96
constriction, hypertensive response to, sympathetic blockade and, H2648
desensitization and norepinephrine receptor-G protein uncoupling in, in rat, H279
endothelium-dependent relaxation, ceruloplasmin effects on, H2843
pressure-diameter relationship, in hypercholesterolemia, H1142
regional differentiation, in rat, H1478
- Aortic coarctation**
pressure overload produced by and cardiac hypertrophy, H113 and natriuretic peptide expression, H113
- Aortic impedance**
embryonic, characterization with lumped parameter models, H19
- Apolipoproteins**
 apoA-1 , and arterial vasomotion, H1215
- L-Arginine**
and skeletal muscle blood flow, H405
- Arrhythmias**
cardiac ion channel structure-function relationships and, H511
generation, in myocardial ischemia-reperfusion, H1119
mechanisms, in dog, H805
in preconditioned pig hearts, H2804 with reperfusion, humoral mediators of, H1707
during social stress, in rat, H1754
sympathetic and vagal effects on, H805 ventricular
cesium-induced, H1377
cisapride-induced, H2534
- Arterial impedance analysis**
in hypertension, H1816
- Arteries**
cerebral, *see* **Cerebral arteries**
compliance, exercise and, H2186
coronary, *see* **Coronary arteries**
 α_{2D} -adrenergic receptor gene expression in, CRE-like response element and, H85
hypertrophy, H2030
mesenteric, *see* **Mesenteric arteries**
pulse-wave velocity, noninvasive determination of, in mouse, H494
resistance, *see* **Resistance arteries**
spinal, nitric oxide- and prostaglandin-dependent dilation in, H2217 tonometry in, H478, H494
vasomotion, apolipoprotein A-1 and, H1215
- Arterioles**
see also **Microvessels**
coronary, myogenic constriction, H257 cumulative conducted responses in, H310
dilation, acetylcholine-induced, H1848 intramycocardial, protection during cardiac contraction, by accompanying venules, H1003
response to acetylcholine release from motor nerves, H156 skeletal muscle, vasoconstriction during myocardial infarction, H1502
- Ascorbate**
see also **Vitamin C**
and late preconditioning against myocardial stunning, H1651
- Aspirin**
and nitric oxide synthase activity in human platelets, H1854
- Atherosclerosis**
aortic wall characteristics in, in rabbit, H1142
gene-targeting studies, H2091
pathophysiology, H2490
vascular remodeling in, H1415
- ATP diphosphorylase**
isozymes
in bovine heart, H673
characterization, H673
localization, in bovine heart, H673
purification, H673
- Atrial fibrillation**
sympathetic and vagal effects on, in dog, H805
ventricular response to, spectral characteristics, H2811
- Atrial natriuretic peptide**
cardiac expression during chronic hypoxia, in rat, H411
cardiomyocyte protection by, H244 expression, during cardiac hypertrophy, H113
in heart failure-prone rat, H228 metabolism, in heart failure, H2372 release, regulation, H2678
- Atrioventricular node**
facilitation, mechanism of, H1658 intrinsic properties, in rabbit heart, H1658
myocytes, electrical activity, electrotonic modulation of, H767 sympathetic-parasympathetic interaction and, H1800
- Autonomic dysreflexia**
rat model for, H1266
- Autonomic nervous system**
in atrial fibrillation, H805 and atrioventricular conduction, in dog, H1800
cardiac control, and blood pressure variability responses to tilt, H1427 cardiac effects, H2155, H2857 circadian influences and, H1761 in diabetes, H1888 during exercise, in dog, H2135 exercise training and, H2613 sleep and, H1761 in social stress, H1754 in spontaneously hypertensive rat, H66 volume overload and, H2580 cardiovascular effects after exercise, sinoatrial denervation and, H2738
- age-posture interrelationships and, H2128
central pathways, H1606, H2549 in pregnancy, H1794
failure, and cerebral autoregulation, H2209
and feedback regulation between heart rate and blood pressure, H478 function, frequency-response characteristics, in rat, H786 and peripheral circulation, H1867
- Autoregulation**
brain stem, ATP-sensitive potassium channels in, H1342 cerebral, H2209 estrogen and, H2248 in meningitis, leukocytes and, H380 coronary, H257, H1299 in spontaneously hypertensive rat, H66
- B**
- Barium**
and heart rate, H2155
- Baroreceptors**
and aortic coarctation hypertension in rat, H2648 carotid sinus, vascular capacitance response to, H1713 response to postural change, in humans, H2632
- Baroreflexes**
age-posture interrelationships and, H2128 and aortic pressure, H38 arterial
heart rate regulation, exercise training and, H2613 and peripheral circulation, H1867 closed-loop identification of open-loop transfer characteristics of, H1024 daily exercise and, H1606 and feedback regulation between heart rate and blood pressure, H478 sensitivity
in drug-induced change in blood pressure, in humans, H1629 and heart rate control after myocardial infarction, H2240 in pregnant rat, H1794 smoking and, in humans, H1555 volume overload and, H2580 tonic inhibition, by Fos protein, H2200
- Bicarbonate**
and adult ventricular myocyte contractility, H1044
- Bisindolylmaleimide**
and inotropic responses of neonatal rat hearts, H1113
- Blood-brain barrier**
nitric oxide and, H2565
- Blood conductivity**
measurement, H2520
- Blood flow**
see also **Hemodynamics**
brachial artery, at exercise onset and recovery, H2388 cerebral, *see* **Cerebral blood flow**
coronary, *see* **Coronary blood flow**
effects on rat mesenteric small artery structure, H1699 endometrial, in ovariectomized rat, H2009 forearm, at exercise onset and recovery, H2388

- myocardial**
 distribution, in myocardial ischemia
 in hemorrhagic shock, H600
 during exercise, in canine heart failure model, H2452
 modeling, H2062
 regional, H2296
neurohypophysial, H1994
regulation, cumulative conducted vasodilation in, H310
 renal, during exercise, in canine heart failure model, H2452
resistance
 increased, leukocytes and, H2884
 in microvessels, endothelial surface layer and, H2272
 skeletal muscle, H2884
 during exercise, in canine heart failure model, H2452
 at rest and during exercise, nitric oxide and, H405
 in skeletal muscle arteries, H2423
skin
 angiotensin II and, H2620
 autonomic control and, H1867
 to skin, functional β -adrenoceptors and, H1038
- Blood pressure**
see also Hemodynamics; Hypertension; Hypotension; Mean arterial pressure; Shock
 after exercise, sinoatrial denervation and, H2738
 angiotensin II and, H2620
 arterial
 glutamate stimulation of diagonal band of Broca and, in rat, H540
 during muscle contraction, H2899
 dynamic sympathetic regulation of, nitric oxide in, H38
 exercise and, H2186
 in heart failure-prone rat, H228
 and heart rate, feedback regulation between, analysis, H478
 platelet-derived growth factor BB isoform and, H1719
 postural change and, in humans, H2632
 in pregnant rat, H1794
 response to hemorrhage, in lambs, H339
 in spontaneously hypertensive rat, exercise training and, H2627
 systemic hemodynamic determinants, in women, H777
 systolic, in brain death, H1291
 variability, responses to tilt, cardiac control and, H1427
- Blood vessels**
 formation, molecular analysis, H2091
 growth, and collapsible pressure-area relationship, H2030
 pressure-area model, H2030
 wall, mass transfer in, simulation of, H464
- Blood volume**
 loss, hemodynamic effects in lambs, H339
 in women, H777
- Brachial artery**
 blood flow, at exercise onset and recovery, H2388
 endothelium-dependent dilation, dysfunction in smokers, H1644
- Bradykinin**
 cardiac metabolism of, angiotensin-converting enzyme in, H2263
 effects on capillary permeability, H200
 in inhibition of cardiac hypertrophy by perindopril, H2659
- Brain**
see also Cerebral blood flow
 fetal, blood flow to, during hypoxia, H1994
 tissue oxygen saturation, in newborn, near-infrared monitoring of, H682
 Tx_{A2}/PGH₂ receptors, vasopressin release by, H1927
- Brain death**
 systemic arterial pressure spectra in, H1291
- Brain injury**
 ATP-sensitive potassium channel function after, endothelin effects on, H2639
- Brain natriuretic peptide**
 expression, during cardiac hypertrophy, H113
 gene expression, in heart, regulation by stretch and ET-1, H2678
 metabolism, in heart failure, H2372
- C**
- Cachectin**, *see Tumor necrosis factor- α*
- Cadherins**
 in interendothelial cell adhesion, H2396
- cADP-ribose**
 and calcium release from cardiac sarcoplasmic reticulum, H1082
- Calcium ATPase**
 in cardiomyocytes
 and atrioventricular contractile differences in rat heart, H2498
 of neonatal swine, H192
 in stunned myocardium, H796
- Calcium channels**
see also Calcium currents
 in cardiomyocytes, β -adrenergic receptors in regulation of, H1669
- Calcium currents**
see also Calcium channels
 L-type
 cardiac, inhibition by extracellular ATP, H250
 in cardiomyocytes, in endotoxemia, H2312
 endurance training and, in rat, H1193
 heterogeneity, in coronary smooth muscle, H2083
 and negative chronotropic effect of ryanodine, H2481
 myocardial, endurance training and, in rat, H1193
 T-type, and negative chronotropic effect of ryanodine, H2481
 voltage-dependent, cardiac, inhibition by extracellular ATP, H250
- Calcium-dependent outward current**
 in myocytes from epicardial border zone in infarcted heart, H1386
- Calcium ions**
 and atrioventricular contractile differences in rat heart, H2498
 and cardiomyocyte relaxation, H573, H2765
 and cardiomyocyte shortening, H573
- cytoplasmic**, *see Calcium ions, intracellular*
- cytosolic**
see also Calcium ions, intracellular
 and high-energy phosphates in senescent myocardium, H418
 in rat vascular smooth muscle, H2867 and energetics of heart beat with high potassium perfusion, H2343
 handling, by rat myocardium, extracellular ATP effects on, H1347
intracellular
 in cardiomyocytes, effect of cocaine and methylecgonidine on, H893
 in endothelial cells, nitric oxide synthase inhibitors and, H747
 transients, in blood-perfused hearts, H2161
transients, rate-dependent abbreviation of, H695
 in vasopressin enhancement of cAMP stimulation in vascular smooth muscle cells, H971
- and mechanotransduction of myogenic response**, H175
- metabolism**, in defective chick heart, H1464
- mitochondrial**, in intact heart, H1432
- permeation** through sodium channels, in ventricular myocytes, H128
- release** from cardiac sarcoplasmic reticulum, by cADP-ribose, H1082
- sensitivity**, of papillary muscles, length dependence of, H1068
- sequestration** in pulmonary artery, in hypoxia, H1075
- uptake**, in stunned myocardium, H796 and VEGF-induced increases in microvascular permeability, H687
- Calcium-release channels**
 in stunned myocardium, H796
- Calmodulin**
 and vasopressin enhancement of cAMP stimulation in vascular smooth muscle cells, H971
- Calories**, *see Energy*
- Calsequestrin**
 in atrial and ventricular myocardium, H2498
- Capillaries**
see also Microvessels
 alveolar, leukocyte entrapment, H2361
 leukocyte accumulation in, low-flow reperfusion after myocardial ischemia and, H1154
 permeability
 cytoskeletal rearrangement and, H286
 nitric oxide and, H2565
 prostacyclin and, H200
- Capillary filtration coefficient**
 prostacyclin and, H200
- Capillary leak**
 vascular protein permeability and, H1049
- Carbachol**
 and sodium/calcium exchange in cardiomyocytes, H1984
- Carbon dioxide**
 and coronary autoregulation, H1299
- Carbon monoxide**
 production, in vascular smooth muscle, cAMP-induced, H317

Cardiac cycle

ventricular volume measurement during, in children with congenital heart disease, H295
Cardiac hypertrophy
 decompensated eccentric, in mouse, H2508
 in heart failure-prone rat, H228
 left ventricular, downregulation of p21 and p27 CDKIs in, H1358
 pressure-overload
 downregulation of p21 and p27 CDKIs in, H1358
 and heat shock protein expression, H526
 natriuretic peptide expression during, H113
 ventricular remodeling in, angiotensin II inhibition and, H1824
 prevention, bradykinin-NO pathway in, H2659
 protective effect of heat stress in, H1333
 with renal hypertension, H1949
 thyroxine-induced, renin-angiotensin system in, H593
 troponin I phosphorylation and, H1440
 volume-overload
 ACE inhibitors and, in dog, H961
 ACE inhibitors and cardiac ACE mRNA in, H641
 myocardial growth in, mechanical regulation, in rat, H1198

Cardiac output

see also Hemodynamics
 dynamics, in spontaneously hypertensive rat, H66
 during exercise, in canine heart failure model, H2452
 in heatstroke, H2072
 in isocapnic hypoxia, in humans, H1126
 measurement, in small animals, H2520
 in spontaneously hypertensive rat, exercise training and, H2627
 in women, H777

Cardiomyocytes

anoxia-reoxygenation, H244
 ATP-sensitive potassium currents, priming effect of adenosine on, H1637
 atrioventricular node, electrical activity, electrotonic modulation of, H767
 bovine, ATP diphosphohydrolase in, H673
 calcium channels, β -adrenergic receptors in regulation of, H1669
 calcium handling after calcium overload, H573
 calcium-overloaded, and diastolic sarcoplasmic reticulum calcium efflux, H886
 chloride channels, β -adrenergic receptors in regulation of, H1669
 contractile depression by endotoxin in, ET-1 and, H1403
 contractile function, and calcium handling after calcium overload, H573
 contractility, β_2 -adrenergic receptor activity and, H1044
 cultured adult rat, delayed preconditioning of, H861
 DNA synthesis, TSC2 gene product and, H1619
 early repolarization, in dog, H1096
 effects of mechanical forces on, H546
 electrical restitution, passive properties in, H1205

energy metabolism, H756

from epicardial border zone, calcium-dependent outward current in infarcted heart, H1386
 growth, during pressure-overload hypertension, H1358
 intracellular calcium, effect of cocaine and methylecgonidine on, H893
 inward rectifier current, sevoflurane effects on, H324
 load-contractility relationship, in heart failure, H183
 loss, with coronary artery constriction, H2508
 L-type calcium channels, in endotoxicemia, H2312
 metabolic downregulation, H756
 nitric oxide synthesis in, adenosine and, H59
 oxygen consumption, in renal hypertension, H1949
 protection against reoxygenation-induced hypercontracture, ANP in, H244
 protein kinase C-mediated preconditioning of, H847
 relaxation, sodium/calcium exchanger and sarcoplasmic reticulum function in, H2765
 remodeling, angiotensin II inhibition and, in rat, H1824
 sarcoplasmic reticulum function in, in neonatal pig, H192
 sodium-bicarbonate cotransport, in adult rat, H2596
 sodium/calcium exchange in carbapol and, H1984
 and contraction, in newborn rabbit, H837
 tetrahydrobiopterin synthesis, induction of, H665
 ventricular, calcium flux through sodium channels in, H128
 voltage-dependent calcium currents, inhibition by extracellular ATP, H250
 Wenckebach-like rhythms, transient outward current and, H1
Cardiomyopathy
 ischemic, mouse model, H2508
Cardioplegia
 for senescent myocardium, H418
Cardioprotection
see also Ischemic preconditioning
 adenosine-mediated, in ischemia-reperfusion, H725, H1677
 by angiotensin-converting enzyme inhibitors, H2263
 catalase and, H1090
 endotoxin-mediated
 in ischemia-reperfusion, H725
 TNF- α and, H1894
 by heat stress, H2458
 in humans, H902
 of hypertrophied heart, heat stress and, H1333
 by limb ischemia, H1707
 phenylephrine-mediated, in ischemia-reperfusion, H725
 during prolonged simulated ischemia, adenosine receptors in, H501
 protein kinase C-mediated, H847
 by taurine depletion, H1956
Cardiopulmonary interaction
 modeling, H1012

Cardiorespiratory control

modeling, H1012
Cardiovascular system
 development, H19
 in chick embryo, H1523
 regulation, central pathways, H540, H1606, H2549

Carotid artery

distensibility, in humans, H1629
 pressure-diameter relationship, in humans, H1629

Catalase

and late preconditioning against myocardial stunning, H1651
 and myocardial protection, H1090

Catecholamines

and adult ventricular myocyte contractility, H1044

Catenins

and interendothelial adhesion, H2396

Cats

cerebral hyperemia, fluorocarbon-induced, H1994
 pontine neurons, and 10-Hz rhythm in sympathetic nerve discharge, H1909
 skeletal muscle, capillary filtration coefficient, prostacyclin and, H200
 vasodilator response to histamine, mechanism of, H928
 ventricular contractility, interstitial norepinephrine and, H1107
 visceral afferents, in ischemia, H1135, H2726

Cell adhesion molecules

nitric oxide regulation of, H740

Cell-cell signaling

neutrophil-endothelial cell, H981

Cell cycle

cardiomyocyte, during pressure-overload hypertrophy, H1358

Central nervous system

endothelin-1 in, cardiovascular effects, H1177

Cerebral arteries

constriction, melatonin-induced, in rat, H1530
 endothelium-dependent relaxation, tetrahydrobiopterin availability and, H718
 endothelium-mediated dilation, in rat, H1472
 hypoxia-induced dilation, nitric oxide and opioids in, H1807
 middle, blood flow velocity, H2209
 nitric oxide release, estrogen and, H2248

Cerebral blood flow

see also Autoregulation, cerebral
 activity-dependent, laminar analysis of, H1166
 estrogen and, H2248
 fetal, during hypoxia, H1994
 during hypotension, ATP-sensitive potassium channels in, H1342

in meningitis, leukocytes and, H380
 regional, H1994
 regulation, in rat, H878

Cerebral blood volume

in newborn, near-infrared monitoring of, H682

Cerebral circulation

brain injury in newborn and, H2639
 hypoxia-induced dilation in, H1807

- in newborn, near-infrared monitoring of, H682
vasoregulation in, in rat, H434
- Cerebral vessels**
ATP-sensitive potassium channels in, H878
nitric oxidergic innervation, in pig, H2192
- Ceruloplasmin**
effects on vasorelaxation, H2843
- Cesium**
and heart rate, H2155
- CGP-48506**
effects in isolated rabbit heart, H2708
- Chick embryo**
aortic impedance, characterization, lumped parameter models for, H191
cardiovascular development, H191
defective heart in, contractile force and calcium metabolism in, H1464
vascular system, arterial wave propagation in, H1523
ventricular/vascular uncoupling in, H2861
- Children**
with congenital heart disease, left ventricular parallel conductance during cardiac cycle in, H295
- Chloride channels**
calcium-activated, and early repolarization in dog ventricle, H1096
in cardiomyocytes, β -adrenergic receptors in regulation of, H1669
- Chloride currents**
cardiac, cAMP-activated, and G_s protein, H2539
and cardiomyocyte function, in newborn rabbit, H837
in myocytes from infarcted heart, H1386
- Cholesterol**
blood/serum levels, *see* Hypercholesterolemia
intake, effects on vascular relaxation in spontaneously hypertensive rat, H647
- Chronotropism**
in diabetes, H1888
negative
of endothelin isopeptides, in cardiac muscle, H119
of ryanodine, ionic basis of, H2481
positive, C-type natriuretic peptide and, in dog, H1933
- Chymase**
in cardiac angiotensin II formation, species considerations, H1769
- Circadian rhythms**
and cardiac effects of autonomic nervous system, H1761
of cardiac output, in spontaneously hypertensive rat, H66
- Circulation**
cerebral, *see* Cerebral blood flow
coronary, *see* Coronary blood flow
- Cisapride**
blockage of HERG human cardiac potassium channel, H2534
- L-Citrulline**
conversion to L-arginine, in porcine cerebral vessels, H2192
- Coagulation**
gene-targeting studies, H2091
- Cocaine**
effects
on intracellular calcium in cardiomyocytes, H893
on myocardial contraction, H893
- Collagen**
perimysial, microstructural model of, H1576
in rat tail tendon, and macromolecular mobility in interstitium, H2794
- Collateral conductance**
and femoral artery occlusion in rabbit, H1255
- Collateral vessels**
and femoral artery occlusion in rabbit, H1255
- Compliance**
arterial, exercise and, H2186
- Computer simulation**
of cardiac electrophysiology, H446
- Congenital heart disease**
children with, left ventricular parallel conductance during cardiac cycle in, H295
- Congestive heart failure, *see* Heart failure**
- Contractile proteins**
cardiac
phosphorylation, H2415
remodeling, H2105
and cardiac hypertrophy, H1440
- Cooling inotropy**
simulation, H2891
- Coronary arteries**
constriction, and myocardial damage, H2508
endothelium-dependent relaxation, gender differences in, H2325
membrane potential, adenosine and, H2687
narrowing, in mouse, H2508
occlusion
myocardial bioenergetics during, H1452
reactivity distal to, H1879
- Coronary blood flow**
see also Coronary arteries
collateral, in myocardial ischemia, H2296
ET-1 and, in vivo, H1239
longitudinal position matrix and, H2832
norepinephrine-induced vasodilation in, adenosine and, H557
oscillations, vasoconstriction and, H2746
phasic, H2746
- Coronary circulation**
autoregulation, H257, H1299
functional heterogeneity in, H2083
myogenic constriction, H257
- Coronary microcirculation**
hypersomotic vasodilation, H104
leukocyte accumulation in, low-flow reperfusion after myocardial ischemia and, H1154
myogenic constriction in, H257
- Coronary vasculature**
intramyocardial, triad arrangement, functional advantage of, H1003
longitudinal position matrix, in pig, H2832
vasodilation
glutathione-induced, mechanism, H1231
- norepinephrine-induced, adenosine in, H557
- Corpus cavernosum**
neurogenic pressor response of, H2141
- CRE-like response element**
mediation of α_{2D} -adrenergic receptor gene expression in vascular smooth muscle, H85
- Cross-bridge cycling**
detachment step, H2044
and Frank-Starling mechanism in cardiac muscle, H2428
- kinetics, in intact heart, H1509
power stroke and, H2044
during unloaded shortening in myocardium, H2415
- Cyclic nucleotides**
and carbon monoxide production in vascular smooth muscle, H317
- Cyclin-dependent kinase inhibitors**
p21, downregulation, in pressure-overload hypertrophy, H1358
p27, downregulation, in pressure-overload hypertrophy, H1358
- Cyclooxygenase**
activity, and endothelium-dependent relaxation in coronary arteries, H2325
inhibition
effects on regional differentiation in rat aorta, H1478
and nitric oxide synthesis, in human platelets, H1854
and vasoactive properties of EETs, H333
- Cytchalasin D**
effects on cardiac sodium channel availability and activation, H1832
- Cytochrome oxidase**
activity, in myocardial ischemia, H1544
- Cytochrome P-450**
metabolite, and dilation of resistance vasculature, H1848
- Cytokines**
endothelial barrier dysfunction related to, nitric oxide and, H2565
- Cytoskeleton**
and cardiac sodium channel availability and activation, H1832
regulation of endothelial tight junctions, H286
in shear stress-induced endothelial nitric oxide production, H347
- D**
- Deferoxamine mesylate**
effects on microvascular permeability, H747
- Diabetes mellitus**
and chronotropic responses, H1888
and platelet-mediated vasodilation, H371
rat model
cardiac dysfunction in, H1187
chronotropic responses in, H1888
and sodium-bicarbonate cotransport in cardiomyocytes, H2596
substrate oxidation in heart of, H52
vascular disease in, H2224
- Diagonal band of Broca**
glutamate stimulation of, cardiovascular responses to, H540

Diet

atherogenic, effects on vascular relaxation in spontaneously hypertensive rat, H647
effects on cardiac mechanics, H2333
high-cholesterol, effects on vascular relaxation in spontaneously hypertensive rat, H647
high-sodium, and angiotensin II administration, synergistic vascular effects, H1275

Dobutamine

effects in isolated rabbit heart, H2708

Dogs

atrial fibrillation in, sympathetic and vagal effects on, H805
atrioventricular conduction in, H1800
cardiac angiotensin II formation in, H1769
cardiac conduction system and pulmonary conus activation sequences, H446
carotid baroreceptor activity, vascular capacitance response to, H1713
cerebral arteries, endothelin-dependent relaxation, tetrahydrobiopterin availability and, H718
chronic coronary artery occlusion in, H1879
coronary autoregulation in, H1299
corpus cavernosum, neurogenic pressor response of, H2141
C-type natriuretic peptide in, chronotropic and inotropic effects, H1933

heart

mechanics, ryanodine and, H1561
neural stunning, oxygen-derived free radicals in, H1569
heart failure model
cardiac sympathetic afferent reflex in, H2664
contractile dysfunction in, H1058
endogenous natriuretic peptides and cardiac function in, H2406
myocardial sarcoplasmic reticulum calcium ATPase in, H12

heart rate

control during exercise, H2135
ionic channel antagonists and, H2155
myocardial energetics in, MCI-154 effects on, H1688

with myocardial ischemia in hemorrhagic shock, energy metabolism and blood flow distribution in, H600

newborn, cardiomyocytes, from infarcted heart, H1386

three-dimensional ventricular residual strain, H1968

ventricle, early repolarization, mechanisms of, H1096

volume-overload cardiac hypertrophy in, ACE inhibitors and, H961

Dopamine

and central cardiovascular pathways, H2549

E**Early growth response protein-1**

and PDGF-A transcription in smooth muscle cells, H1415

Echocardiography

postinfarction changes on, H2018

transesophageal, in rat, intravascular ultrasound catheter for, H2078

Edema

myocardial, defense against, H1408
plasma protein osmotic pressure and, H997

in skeletal muscle ischemia-reperfusion injury, H989

vascular protein permeability and, H1049

Electrical shock

effects on cardiac membrane potential, H2817

on left ventricular mechanoenergetics, H583

Electrocardiography

variability of R-R, P wave-to-R wave, and R wave-to-T wave intervals on, H2857

of ventricular tachycardia, H1377

Electrophysiology

see also Action potentials

of A5 noradrenergic cells, H2280

of atrial cells, H1745

cardiac, H511, H1933

in blood-perfused ischemic preparation, H2161

in children with congenital heart disease, H295

computer simulation, H446

in dog, H1096

electrical shock effects on, H583,

H2817

electrotonic modulation of, H767

endurance training and, in rat, H1193

extracellular glucose and, H2876

extracellular sulfhydryl groups and, H208

passive electrical properties in, H1205

in preconditioned pig heart, H2804

sevoflurane effects on, H324

of cardiac allograft, H28

of coronary microcirculation, H104

of iridial arterioles, in rat, H2465

of ventricular cells, isolated from rabbit, H1

of ventricular tachycardia, H1377

Embryo

chick, *see Chick embryo*

mouse, cardiac function in, H1368

EMD-57033

effects in isolated rabbit heart, H2708

Enalapril

in volume overload-induced cardiac hypertrophy, H641

Endometrium

blood flow to, in ovariectomized rat, H2009

Endothelial cells

see also Leukocytes; Neutrophils

adhesion molecules, expression in gene-targeted mice, H1903

aging-induced impairment, markers of, H1941

albumin clearance, H2304

calcium levels in

nitric oxide synthase inhibitors and, H747

vascular endothelial growth factor and, H687

circulating, in aging rat, H1941

contraction, H981

electrical resistance, H2304

growth, regulation, protamine and, H2586

intercellular adhesion, cadherins and plakoglobin and, H2396
monocyte adhesion to, H817
inhibition by α -tocopheryl succinate, H634

nitric oxide synthase, induction in exercise-trained pig, H2575

poly(I-C)-induced leukocyte adhesion molecules, nitric oxide and, H2481

P-selectin expression, nitric oxide regulation of, H740

uptake of cationic liposome-DNA complexes, in mouse, H387

Endothelin receptors

pulmonary vascular, in pulmonary vasculopathy, H2549

Endothelins

ET-1

and brain natriuretic peptide gene expression in heart, H2678
and capillary permeability in vivo, H1239

central administration, cardiovascular effects, H1177

and contractile depression by endotoxin in cardiomyocytes, H1403

myocardial, isopeptide-specific induction of, H1727

myocardial clearance, H1239

myocardial metabolism, H1239

myocardial production, H1239

in myocardial reperfusion, H1119
regulation, gender differences in, H1962

effects

on ATP-sensitive potassium channel function after brain injury, H2639
on muscarinic potassium current in atrial cells, H1745

inhibitory action, in heart, H119
reactivity, in pulmonary vasculopathy, H2549

in resuscitative effect of diaspirin cross-linked hemoglobin after hemorrhage in rat, H827

Endothelium

barrier dysfunction, nitric oxide and, H2565

barrier function, vinculin phosphorylation and, H608

dysfunction, caused by LDL, H1215

intestinal microvascular, sympathetic nerve activity and, H426

leukocyte interaction with, *see Leukocyte-endothelial cell adhesion*
and mesenteric vascular tone, in hibernating hamsters, H148

nitric oxide production, flow-induced, H347

nitric oxide synthase, and vasomotor function, H265

permeability, platelets and, H2304

regulation of vascular tone, in smokers, H1644

surface layer, and microvascular blood flow resistance, H2272

tight junctions, modulation by cytokines, cytoskeletal regulation of, H286

Endothelium-derived hyperpolarizing factor

and hyperosmotic vasodilation in coronary microcirculation, H104

- in rat cremaster muscle microcirculation, anesthetics and, H618
in resistance vasculature, H1848
- Endothelium-derived relaxing factor**
see also Nitric oxide
and cerebrovascular tone, in rat, H878
effects on spinal resistance-sized small arteries, H2217
and sympathetic neurogenic constriction in intestinal microcirculation, H426
in vasodilator response to histamine, H928
- Endotoxin**
cardioprotection against ischemia induced by, H725, H1894
effects on cardiomyocyte contractile function, ET-1 and, H1403
and L-type calcium channels in cardiomyocytes, H2312
nitric oxide induced by, H164
nitric oxide production induced by, estrogen and, H506
- Energy**
intake, restriction, effects on cardiac mechanics, H2333
metabolism
in heart muscle contraction, with high potassium perfusion, H2343
in myocardial ischemia in hemorrhagic shock, H600
and skeletal muscle ischemic tolerance, H44
- Enkephalins, see Opioids**
- Epicardium**
transudation in, determinants of, H1408
- Epinephrine**
cardiorenal release, in humans, H2178
- Epoxyeicosatrienoic acid**
cerebrovascular responses to, in neonatal piglets, H333
- Erythrocytes**
aggregation, species comparisons, H2604
cellular properties, species comparisons, H2604
function, in dynamic exercise, in humans, H1787
velocity, leukocytes and, H2884
- E-selectin**
cytokine-induced expression, inhibition by N-acetylcysteine, H817
expression in gene-targeted mice, H1903
and leukocyte-endothelial cell adhesion, H2481
- Estrogen**
and blood pressure, in women, H777
and cerebral artery nitric oxide release, H2248
and endometrial blood flow, H2009
and endothelium-dependent relaxation in coronary arteries, H2325
and inducible nitric oxide production in rat, H506
and regulation of C-type natriuretic peptide gene expression, in mouse uterus, H2672
and regulation of endothelial nitric oxide synthase and ET-1, H1962
- Exercise**
and arterial compliance, H2186
autonomic control after, sinoatrial denervation and, H2738
and blood pressure, H2186
and cardiac afferents, H1606
dynamic, cardiovascular response to, in acute anemia in humans, H1787
forearm blood flow in, H2388
functional hyperemia in, H156
muscle temperature in, and metaboreflex, H2436
pressor reflex, H2899
regional blood flow during, in canine heart failure model, H2452
skeletal muscle blood flow during, H405
treadmill regimen, for identification of cardiovascular phenotypes in transgenic mice, H1595
vasodilation during, H2186
- Exercise training**
and blood pressure, in women, H777
endurance, and cardiac calcium current characteristics, H1193
hemodynamic effects in spontaneously hypertensive rat, H2627
and induction of endothelial cell nitric oxide synthase, H2575
and reflex cardiac autonomic control, H2613
- Eye, see Iris**
- F**
- Fatty acids**
uptake, in dysfunctional myocardium, H2473
- Femoral artery**
occlusion, angiogenesis with, H1255
- Ferrets**
cardiomyocytes, effect of cocaine and methylecgonidine on, H893
papillary muscles, length and calcium sensitivity, H1068
- Fetus**
cerebral blood flow, during hypoxia, H1994
hypoxia, cardiovascular response to, H2351
- Fibroblast growth factor**
basic, in myocardial vascular smooth muscle cells, H628
- Finite element analysis**
of cardiac mechanics, in dog, H1968
of mechanical blood-tissue interaction in skeletal muscle, H1587
- Fluid balance**
myocardial, and mechanical workload of heart, H271
- 14(R,S)-Fluoro-6-thia-heptadecanoic acid**
¹⁸F-labeled, as probe of fatty acid uptake in dysfunctional myocardium, H2473
- Flutamide**
and organ function in males, after trauma-hemorrhage, H2919
- Food restriction**
effects on cardiac mechanics, H2333
- Fos protein**
and baroreflex sensitivity, H2200
- Fractals**
and chaotic agonist-induced vasomotion, H909
and middle cerebral artery flow velocity, H2209
and ventricular response to atrial fibrillation, H2811
- Frank-Starling mechanism**
in cardiac muscle, H2428
- FTHA, see 14(R,S)-Fluoro-6-thia-heptadecanoic acid**
- Fura Red**
observations of calcium transient alternans in blood-perfused heart using, H2161
- G**
- Gender differences**
in endothelium-dependent relaxation, H2325
in heart failure-prone rat, H228
and regulation of endothelial nitric oxide synthase and ET-1, H1962
- Gene expression**
brain natriuretic peptide, in heart, regulation by stretch and ET-1, H2678
C-type natriuretic peptide, in mouse uterus, regulation by estrogen, H2672
endothelial cell nitric oxide synthase, in exercise-trained pig, H2575
endothelin-1, in heart failure, in rat, H1727
heme oxygenase-1, in vascular smooth muscle, H317
inducible nitric oxide synthase, endotoxin-mediated, H164
AT₁ receptor, in vascular smooth muscle cells, H655
vascular endothelial growth factor, uteroplacental, in pregnancy, H938
- Gene-targeting studies**
of blood vessel formation, H2091
of cardiac contractile protein remodeling, H2105
of cardiovascular disease, H2091
of endothelial cell adhesion molecule expression in mouse, H1903
- Gene therapy**
cationic liposome-mediated transfection and, H387
for restenosis, H2091
- Gene transfer**
by cationic liposome-mediated transfection, H387
of endothelial nitric oxide synthase, H265
- Glucose**
and cardiac glucose transporter regulation, H1309
effects on vascular endothelial growth factor expression, H2224
extracellular, and cardiac excitation-contraction coupling, H2876
uptake, by heart, during and after ischemia, insulin and, H2170
- Glucose transporters**
cardiac, regulation in vivo, H1309
GLUT1, regulation in cardiac muscle in vivo, H1309
GLUT4, regulation in cardiac muscle in vivo, H1309
- Glutamate**
stimulation of diagonal band of Broca, cardiovascular responses to, H540
- Glutathione**
coronary vasodilation caused by, mechanism, H1231

- Glutathione peroxidase** and late preconditioning against myocardial stunning, H1651
- Glutathione reductase** and late preconditioning against myocardial stunning, H1651
- Glycocalyx** and microvascular blood flow resistance, H2272
- Glycogen** and myocardial ischemia, H2170 and postischemic cardiac performance, H1187
- Glycolysis** and myocardial ischemia, H2170
- Glycosaminoglycans** and vascular wall mechanics, H952
- Gö-6976** and inotropic responses of neonatal rat heart, H1113
- Golden hamsters**, *see* Hamsters
- G protein receptor kinase** expression, during development of heart failure, H707
- G proteins** and cardiac calcium current inhibition, H250 and norepinephrine receptor function in rat aorta, H279 pertussis toxin-sensitive, H1669 in atrial cells, H1745 stimulatory, in regulation of cardiac chloride current, H2539
- GRK**, *see* G protein receptor kinase
- Growth factors**, *see* Transforming growth factor; Vascular endothelial growth factor
- GTP-binding proteins**, *see* G proteins
- Guanethidine** and aortic coarctation hypertension in rat, H2648
- Guanosine 3',5'-cyclic monophosphate** and hypertrophic cardiomyocytes, H1949
- Guanosine 5'-triphosphate-binding proteins**, *see* G proteins
- Guanosine 5'-triphosphate cyclohydrolase I** activity, in cardiomyocytes, H665
- Guanylate cyclase** and carbon monoxide production in vascular smooth muscle, H317 in cardiomyocyte protection by ANP, H244 in glutathione-induced coronary vasodilation, H1231
- Guinea pigs** atrial cells, muscarinic potassium current in, endothelin effects on, H1745 cAMP-activated cardiac chloride current, and G_{α} protein, H2539 cardiomyocytes calcium permeation through sodium channels in, H128 inward rectifier current, sevoflurane effects on, H324 ion channels, β -adrenergic receptors in regulation of, H1669 L-type calcium channels, in endotoxicemia, H2312 sodium/calcium exchange in, H1984
- coronary artery**, membrane potential, adenosine and, H2687
- H**
- Haemophilus influenzae type b** meningitis, cerebral autoregulation and hyperemia in, H380
- Halothane** effects on nitric oxide and endothelium-derived hyperpolarizing factor in microcirculation, H618
- Hamsters** cardiomyocytes, voltage-dependent calcium currents, inhibition by extracellular ATP, H250 cheek pouch arteriole, cumulative conducted dilation in, H310 hibernating, mesenteric arterial tone in, control of, H148 skeletal muscle ischemia-reperfusion injury in, H989
- Heart** *see also* Ischemia; Ischemia-reperfusion; Myocardium activity, forebrain parasympathetic control of, H2926 age-related changes in, food restriction and, H2333 atrial function, in tachycardia-induced heart failure, H921 atrial hypertrophy regression, H921 connectivity matrix, H2832 contractile function in diabetic rat, H52 molecular remodeling of, H2105 cross-bridge rate constants, H2044 defective, contractile force and calcium metabolism in, H1464 development, in chick embryo, H2861 diastolic function after countershock, H583 postinfarction, H2018 embryonic mouse, left ventricular volumes and function, H1368 excitation-contraction coupling effect of cocaine and methylecgonidine on, H893 electrical shock effects on, H583 extracellular glucose and, H2876 and intracellular calcium, H1509 localized cAMP-dependent signaling and, H1611 function, after trauma-hemorrhage, flutamide and, in males, H2919 hypertrophy, *see* Cardiac hypertrophy; Heart ventricles imaging, *see* Echocardiography ischemic injury, in insulin-resistant rat, H1187 mechanics in dog, H1561, H1968 food restriction and, H2333 ryanodine and, in dog, H1561 in tachycardia-induced heart failure, H921 mechanoenergetics after countershock, H583 in isolated preparation from rabbit, H1032 neuronal epinephrine release, in humans, H2178 parasympathetic innervation, monitoring, in conscious rat, H2850
- substrate oxidation in, in diabetic rat, H52 sympathetic innervation, monitoring, in conscious rat, H2850 sympathetic tonus, after exercise, sinoatrial denervation and, H2738
- Heart disease** in diabetic rat, H1187
- Heart failure** adenyl cyclase expression in, H707 cardiac function in, endogenous natriuretic peptides and, H2406 cardiac sympathetic afferent reflex in, in dog, H2664 congestive, canine model for, H961, H1058 G protein receptor kinase expression in, H707 myocardial sarcoplasmic reticulum calcium ATPase in, H12 myocyte load-contractility relationship in, in pig, H183 natriuretic peptide metabolism in, H2372 plasma renin activity in, H228 rat model genetic, age-dependent augmentation of endothelial nitric oxide synthase in, H1223 isopeptide-specific induction of myocardial ET-1 in, H1727 plasma renin activity in, H228 reflex control of heart rate and sympathetic nerve activity in, H2580 spectral characteristics during, H2811 tachycardia-induced atrial function in, H921 contractile dysfunction in, H1058
- Heart rate** arterial baroreflex control of, exercise training and, H2613 and blood pressure, feedback regulation between, analysis, H478 and contractility, in mouse, H1275 control after myocardial infarction, H2240 during exercise, H2135 glutamate stimulation of diagonal band of Broca and, in rat, H540 ionic channel antagonists and, H2155 and myocardial water content, H271 postural change and, in humans, H2632 response to hemorrhage, in lambs, H339 variability, H2811, H2857 age-posture interrelationships and, H2128 and arterial baroreflex stimulation, H1867 in estimation of cardiac age, H1841 modeling, H1012 in pregnant rat, H1794 in smokers, H1555 during social stress, in rat, H1754 volume overload and, H2580
- Heart transplantation** allograft contractile function, H28 allograft electrophysiology, H28 and natriuretic peptide expression, H113 nitric oxide modulation of allograft myocardial function in, H28
- Heart ventricles** ATP diphosphohydrolase in, H673 cells, *see* Cardiomyocytes

contractility, interstitial norepinephrine and, H1107
contraction
see also Arrhythmias; Heart rate
in isolated rabbit heart, H2708
dysfunction, with coronary artery constriction, H2508
early repolarization, mechanisms of, in dog, H1096
force-frequency relationships and myocardial contractility in mouse, H1283
in open- versus closed-chest mouse, H2528
in perfused rat heart, H1246
vagal stimulation and, H534
function, H12
assessment, in open- versus closed-chest mice, H2528
in chick embryo, H2861
in isolated rabbit heart, H2696
myocardial water content and, H271
hypertrophy, in hypertensive rat genetically prone to heart failure, H1223
left
function, after myocardial infarction, in aging rat, H2652
function, and myocardial contractility in mouse, H1283
hypertrophy, *see Cardiac hypertrophy, left ventricular*
isovolumic relaxation, ejection and, H2696
mechanoenergetics, after counter-shock, H583
pressure, and myocardial water content, H271
pressure-volume area, and myocardial energetics, H1688
remodeling, after myocardial infarction, in aging rat, H2652
spherical dilation and regional contractile dysfunction, H1058
three-dimensional residual strain, in dog, H1968
mechanics
and intracellular calcium, in intact heart, H1509
ryanodine and, in dog, H1561
pressure, and intracellular calcium, in intact heart, H1509
pressure-volume relations, H1058
in chick embryo, H2861
electrical shock effects on, H583
and myocardial energetics, H1688
relaxation, in isolated rabbit heart, H2708
remodeling, H1058
angiotensin II inhibition and, H1824
with coronary artery constriction, H2508
in volume hypertrophy, in rat, H1198
right
function, H12
hypertrophy, in rat, H411
volume measurement, in children with congenital heart disease, H295
Heart weight index
in heart failure-prone rat, H228
Heat shock proteins
HSP 70
in delayed preconditioning of cultured adult rat cardiomyocytes, H861
in hypertrophied heart, H1333

HSP 72, expression in hypertrophied hearts, H526
HSP 73, expression in hypertrophied hearts, H526
HSP 90, in delayed preconditioning of cultured adult rat cardiomyocytes, H861
Heat stress
cardiac protection by, H2458
hemodynamic adjustment to, nitrosyl factors and, in rat, H1537
and postischemic contractile function, H861
protection of hypertrophied heart against ischemic damage, H1333
Heatstroke
IL-1 receptor and arterial hypotension in, H2072
Heme oxygenase-1
gene expression, in vascular smooth muscle, H317
Hemodynamics
during heatstroke, H2072
invasive measurement, in open- versus closed-chest mice, H2528
longitudinal position matrix of coronary vasculature and, H2832
S-nitroso-penicillamine and, in rat, H1493
renal, in response to hemorrhage, in lambs, H339
in spontaneously hypertensive rat, exercise training and, H2627
systemic
in response to hemorrhage, in lambs, H339
in women, H777
Hemoglobin
see also Oxyhemoglobin
di aspirin cross-linked, resuscitative effect, after hemorrhage in rat, H827
low, and dynamic exercise, in humans, H1787
Hemorheology
species comparisons, H2604
Hemorrhage
see also Shock, hemorrhagic
hemodynamic effects in lambs, H339
testosterone receptor blockade after, and organ function in males, H2919
Heparan sulfate
and endothelial cell growth regulation, H2586
Heparin
and endothelial cell growth regulation, H2586
HERG
blockage, by cisapride, H2534
Hexanoate
oxidation, in diabetic rat heart, H52
Hindlimb suspension
and cytosolic calcium, in rat vascular smooth muscle, H2867
Histamine
chaotic vasomotion induced by, membrane ion transport and, H909
endogenous, and visceral afferent activity during ischemia, H1135, H2726
in portal vein plasma and mesenteric lymph, during ischemia-reperfusion, H1135
vasodilator response to, mechanism of, in cat, H928
Hormone replacement
and blood pressure, in women, H777
Horses
red blood cell aggregation and membrane structural correlates, H2604
Human ether *à-go-go*-related gene, see HERG
Hyaluronan
in rat tail tendon, and macromolecular mobility in interstitium, H2794
Hydraulic conductance
in epicardium, H1408
Hydraulic conductivity
in vivo, H2774
Hydrogen peroxide
in ischemia-reperfusion injury, H1090
Hydrostatic pressure
effects on *in vivo* hydraulic conductivity, H2774
Hypercholesterolemia
aortic wall characteristics and, H1142
effects on vascular relaxation in spontaneously hypertensive rat, H647
reperfusion injury in, H854
Hyperemia
active, role of nitric oxide in, H405
cerebral, in meningitis, leukocytes and, H380
fluorocarbon-induced, H1994
functional, H156
Hyperglycemia
effects on vascular endothelial growth factor expression, H2224
Hyperinsulinemia
and cardiac glucose transporter regulation, H1309
and postischemic cardiac performance, H1187
Hyperlipidemia
and postischemic cardiac performance, H1187
Hyperosmolarity
coronary microvascular dilation to, ATP-sensitive potassium channels in, H104
Hypertension
aortic coarctation-induced, sympathetic blockade and, H2648
aortic dynamics in, H96
arterial impedance analysis in, H1816
effects of dietary sodium supplementation and angiotensin II administration, H1275
episodic, in conscious spinal rat, NMDA and AMPA receptors in, H1266
exercise training and, in rat, H2627
and high salt intake, resistance artery response to hypoxia and vasodilators during, H869
and myogenic constriction of human coronary arterioles, H257
NOS inhibition-induced, vascular responsiveness to α_2 -adrenergic stimulation in, H2756
rat model for, endothelial nitric oxide synthase in, H1223
renal, cardiomyocyte oxygen consumption in, H1949
 Tx_A_2/PGH_2 -induced, H734
vascular function in, hypercholesterolemia and, H647
vascular remodeling in, H2030
Hyperthermia, see Heat stress
Hyperthyroidism
cardiac hypertrophy in, renin-angiotensin system and, H593

Hypotension
acute-phase, endotoxin-induced, H164
arterial, in heatstroke, H2072
brain stem circulation during, ATP-sensitive potassium channels in, H1342
PDGF-BB-related, H1719

Hypothalamus
stimulation, cardiac effects in rat, H786

Hypothermia
myocardial, in acute myocardial infarction, protective effects, H220

Hypoxia
see also Ischemia-reperfusion
and calcium sequestration in pulmonary artery, H1075
cardioprotection during, adenosine receptors in, H501
chronic, pulmonary hypertension during, and cardiac expression of atrial natriuretic peptide, H411
fetal
cardiovascular response to, H2351
cerebral blood flow during, H1994
fetal cerebral blood flow during, H1994
isocapnic, human pulmonary vascular response to, H1126
vascular endothelial growth factor expression induced by, in myocardial vascular smooth muscle cells, H628

I

Ifetroban
effects on pressor response, in rat, H1927

Immunoglobulins
IgG, diffusion in muscle, H2783

Impedance
arterial, embryonic, characterization with lumped-parameter models, H19

Indicator dilution
intravascular, myocardial time-concentration curves, modeling, H2062
and myocardial capillary permeability *in vivo*, H1239

Indo 1
calcium fluorescence measurements using, H566

Indomethacin
effects on capillary permeability, H200
and nitric oxide synthase activity in human platelets, H1854

Inductance
addition to three-element windkessel model, H19

Inflammation
cytoskeletal rearrangement in, and human microvascular endothelial tight junctions, H286
in meningitis, leukocytes and, H380
in postischemic venules of hypercholesterolemic rat, H854
and skeletal muscle microvascular permeability, H303

Inorganic phosphate
and coronary pressure in cardiac dysfunction, H566

Inositol phosphates
effect of ischemia-reperfusion on, H1119

Inositol 1,4,5-trisphosphate
generation, in myocardial ischemia-reperfusion, H1119

Inotropic stimulation
impaired response to, in spontaneously hypertensive rat heart, H1440
and mitochondrial calcium content in isolated perfused heart, H1432

Inotropism
negative
bradycardia-mediated vagal, H534
of endothelin isopeptides, in cardiac muscle, H119
positive
C-type natriuretic peptide and, in dog, H1933
P2 purinoreceptor and, H2380

Inotropy
cooling, simulation, H2891

Insulin
and cardiac glucose transporter regulation, H1309
and glucose uptake in myocardial ischemia, H2170

Integrins
 β_1 , in cardiomyocytes, effects of mechanical forces on, H546

Intercellular adhesion molecule
CD18-ICAM-1, and leukocyte entrapment in alveolar capillaries, H2361

ICAM-1
expression, in rat microvasculature, H138
and leukocyte-endothelial cell adhesion, H2490
and postischemic endothelium-dependent vascular reactivity, H2721

Interferons
IFN- γ , effects on human microvascular endothelial tight junctions, H286

Interleukin receptors
IL-1, and arterial hypotension in heatstroke, H2072

Interleukins
IL-1 β , and nitric oxide synthesis in cardiomyocytes, H59

Interpulse interval
in brain death, H1291

Interstitium
macromolecular mobility in, H2774, H2783, H2794
simulation of, H464
and skeletal muscle ischemia-reperfusion injury, H989
mass transfer in, simulation of, H464
tendon, macromolecular mobility in, spaces and, H2794

Intestine
microcirculation, sympathetic neurogenic constriction in, endothelium-derived nitric oxide and, H426

Intracellular adhesion molecule 1
expression in gene-targeted mice, H1903

Ion channels
cardiac, structure and function of, H511

Ion transport
membrane, and chaotic agonist-induced vasomotion, H909

Iris
arterioles
electrical properties of, in rat, H2465
neuropeptide Y in, in rat, H2119

Iron-chelating reagent
effects on microvascular permeability, H747

Ischemia
cardiac performance after, in insulin-resistant rat, H1187
cardioprotection during, adenosine receptors in, H501
coronary, and heat shock protein expression in hypertrophied hearts, H526
limb, cardioprotection by, H1707
mesenteric, in cat, H2726
myocardial, *see Myocardial ischemia*
protection of hypertrophied heart against, heat stress and, H1333

Ischemia-reperfusion
see also Hyperemia; Myocardial ischemia
adenosine-mediated cardioprotection in, H1677
cardioprotection in
endotoxin-induced, H725, H1894
by limb ischemia, H1707
endothelium-dependent vascular response after, H2721
low-flow, and leukocyte accumulation in coronary microcirculation, H1154
mesenteric, histamine and serotonin levels during, H1135
myocardial
nitric oxide and, in rabbit, H2931
preconditioning against, adenosine receptors in, H1324
sodium/hydrogen exchange in, H2232
and phospholipase D activity in rat heart, H1860
recovery from, in senescent myocardium, H418
skeletal muscle
leukocyte plugging and edema in, H989
transitory changes in microvascular permeability during, H303
vascular protein leakage induced by, in normal and hypercholesterolemic rat, H854

Ischemic preconditioning
adenosine in, H1637
cardiac, by limb ischemia, H1707
delayed, of cultured adult rat cardiomyocytes, heat shock proteins and, H861
at distance, H1707
early and late
combination, additive effects, H725
different mechanisms of, H725
effects on adenosine and 5'-nucleotidase levels during coronary occlusion, H945
of human myocardium, H902
and intracellular pH during ischemia, H2257
late
combination with early preconditioning, additive effects, H725
against myocardial stunning, adenosine receptors in, H1324
nitric oxide and, in rabbit, H2931
and phospholipase D signaling in heart, H1860
of skeletal muscle, ATP-sensitive potassium channels in, H44

Isoflurane
effects on nitric oxide and endothelium-derived hyperpolarizing factor in microcirculation, H618

Isoproterenol

inotropic response to, in neonatal rat heart, H1113
and ion channels in guinea pig ventricular myocytes, H1669
and length-dependence of papillary muscles calcium sensitivity, H1068

I_{to}, see **Transient outward current**

IVI-118,551

and ion channels in guinea pig ventricular myocytes, H1669

K**Ketamine**

effects on nitric oxide and endothelium-derived hyperpolarizing factor in microcirculation, H618

Ketotifen

effects on microvascular permeability, H747

Kidney

see also **Renal sympathetic nerve activity**

blood flow, during exercise, in canine heart failure model, H2452

Knockout mice

blood vessel formation studies in, H2091

cardiovascular disease studies in, H2091

phospholamban, cardiac function in, H2826

L**Laryngeal nerve**

superior, stimulation, and reflex hind-limb vasodilation in rat, H228

Lemakalim

and skeletal muscle ischemic tolerance, H44

Leukocyte-endothelial cell adhesion

biology, H634, H740, H817, H989, H2490, H2721

Leukocytes

accumulation

in rat coronary microcirculation, low-flow reperfusion and, H1154

in rat pulmonary microcirculation, H2361

adherence

see also **Leukocyte-endothelial cell adhesion**

in postcapillary venules, in rat, H138

adhesion, in postischemic venules of hypercholesterolemic rat, H854

in cerebral autoregulation and hyperemia, in meningitis in rabbits, H380

diapedesis, H981

increased blood flow resistance induced by, H2884

in skeletal muscle ischemia-reperfusion injury, H989

Lipids

and cardiac glucose transporter regulation, H1309

Lipopolysaccharide, *see* **Endotoxin****Liposome-DNA complexes**

endothelial cell uptake of, in mouse, H387

Liver

function, after trauma-hemorrhage, flutamide and, in males, H2919

microvasculature, ICAM-1 expression, in rat, H138

Load-function relationship

in myocytes, in porcine heart failure model, H183

Locus ceruleus

noradrenergic cells

α_2 -adrenergic receptors, H2290
physiology, H2280, H2290

Low-density lipoproteins

dysregulation of arterial tone by, H1215
mass transfer in blood vessel wall, H464

LPS (lipopolysaccharide), *see* **Endotoxin****Lung injury**

TNF- α -induced vascular barrier dysfunction and, H2565

Lusitropy

in isolated rabbit heart, H2696

M**Magnetic resonance spectroscopy**

phosphorus-31, in rat heart, H566

Mass transfer

in blood vessel wall, simulation of, H464

Mast cell stabilizer

effects on microvascular permeability, H747

Mathematical model

of arterial remodeling, H2030

of closed-loop characteristics of carotid sinus baroreflex, H1024

for IgG diffusion in muscle, H2783

of incremental wall stress and strain and incremental chamber pressure and volume, H2044

of mass transfer in porous media of blood vessel walls, H464

of membrane osmotic reflection coefficient, H997, H1049

of open-loop characteristics of carotid sinus baroreflex, H1024

MBED, *see* **9-Me-7-Br-eudistomin-D****MCI-154**

effects on myocardial energetics, H1688

Mean arterial pressure

regulation, in spontaneously hypertensive rat, H66

variability, in pregnant rat, H1794

9-Me-7-Br-eudistomin-D

and calcium release from cardiac sarcoplasmic reticulum, H1082

Melatonin

effects on rat cerebral arteries, H1530

Meningitis

cerebral autoregulation and hyperemia in, leukocytes in, H380

Mesenteric arteries

function, chondroitin-dermatan sulfate-containing proteoglycans and, H952

nitric oxide production, and endotoxin-induced acute-phase hypotension, H164

synergistic effects of high-sodium diet and angiotensin II administration on, H1275

tone, control of, in hibernation, H148

Mesocricetus auratus, *see* **Hamsters****Messenger RNA**

cardiac angiotensin-converting enzyme, in volume overload-induced cardiac hypertrophy, H641

Metabolism

anaerobic, and postischemic cardiac performance, H1187

Methacholine

cumulative conducted vasodilation in response to, H310

Methodologies

for arterial tonometry, H478, H494
for blood conductivity measurement, H2520

for cardiac output measurement in small animals, H2520

for confocal microscopy

in rat microvessels, H138

in rat portal vein, H2867

for cross-spectral analysis of systolic blood pressure and interpulse interval, H1291

for cryospectrophotometric measurement of microvascular oxyhemoglobin saturations, H2910

for data analysis

by frequency-domain analyses, H1909

by spike-triggered averaging, H1909

for electrocardiography during social stress, in rat, H1754

for electron probe microanalysis, of mitochondrial calcium in intact heart, H1432

for endocardial mapping, H356

for immunohistochemistry

of Fos-like immunoreactivity, H2200
of myocardial endothelin-1, H1727

for intravital microscopy

in fetal mouse, H1368

in hamster, H989

for laser confocal microscopy, in rat microvessels, H138

for laser-Doppler flowmetry, H1038
of cerebral blood flow in rat, H1166

for laser-Doppler imaging, H1038

for mapping of ventricular tachycardia, H1377

for microdialysis

of interstitial norepinephrine, H1107
intradermal, H1038

of nitric oxide in skeletal muscle, H405

of norepinephrine and acetylcholine, in rat, H2850

for muscimol microinjections in cat, H1909

for neural recordings in cat, H1909

for noninvasive determination of pulse-wave velocity in mouse, H494

for retrograde transneuronal viral labeling, H2926

for ventricular volume measurement, in children with congenital heart disease, H295

for videomicroscopy, in porcine heart failure model, H183

for Western blotting, of sarcoplasmic reticulum calcium ATPase in ventricular myocardium, H12

Methoxamine

inotropic response to, in neonatal rat heart, H1113

N-Methyl-D-aspartate receptors

spinal, in episodic hypertension in conscious spinal rat, H1266

Methylecgonidine

effects

on intracellular calcium in cardiomyocytes, H893

Methylecgonidine (continued)
on myocardial contraction, H893

Mice
adhesion molecule-deficient, vascular reactivity in, H2721
blood conductivity measurement, as index of cardiac output, H2520
cardiac angiotensin II formation in, H1769
cardiac output
blood conductivity measurement as index of, H2520
measurement, H2520
coronary arteries, narrowing, H2508
embryo, heart function in, H1368
endothelial cell uptake of cationic lipids some-DNA complexes in, H387
gene knockout, *see Knockout mice*
heart, fetal, left ventricular volumes and function, H1368
myocardial contractility, force-frequency effect and, H1275
open-versus closed-chest force-frequency relationships in, H2528
invasive hemodynamics in, H2528
pulse-wave velocity in, noninvasive determination of, H494
transgenic, *see Transgenic mice*
uterus, C-type natriuretic peptide gene expression in, regulation by estrogen, H2672

Microcirculation
blood flow resistance in, H2884
cerebral, responses to epoxyeicosatrienoic acid, in neonatal piglets, H333
coronary
hyperosmotic vasodilation, H104
leukocyte accumulation in, low-flow reperfusion after myocardial ischemia and, H1154
myogenic constriction in, H257
cutaneous, autonomic control and, H1867
intercellular adhesion molecule 1 expression in, in rat, H138
nitric oxide and endothelium-derived hyperpolarizing factor in, anesthetics and, H618
pulmonary, leukocyte entrapment, H2361
response to acetylcholine release from motor nerves, H156

Microvessels
see also Arterioles; Capillaries; Venules
blood flow resistance, endothelial surface layer and, H2272
endothelial tight junctions, modulation by cytokines, cytoskeletal regulation of, H286
hydraulic conductivity
see also Permeability, microvascular
nitric oxide synthase inhibitors and, H747
hyperpermeability, signal transduction of, H2442
individually perfused, permeability, H747
permeability
nitric oxide synthase inhibitors and, H747
plasma protein osmotic pressure and, H997

signal transduction of, H2442
during skeletal muscle ischemia-reperfusion, H303
vascular endothelial growth factor and, H687
relaxation, potassium channels and, H76

Mitochondria
subsarcolemmal, oxidative phosphorylation through cytochrome oxidase, in ischemia, H1544

Modeling in physiology
analog models, for characterization of embryonic aortic impedance, H19
of chronological and cardiac age comparisons, H1841
of compression of intramyocardial arterioles during cardiac contraction, H1003
of cooling inotropy of myocardium, H2891
of effect of breathing pattern on respiratory sinus arrhythmia estimation, H1012
of feedback regulation between heart rate and blood pressure, H478
finite-element simulation of blood perfusion in muscle, H1587
of left ventricular diastolic dysfunction, H2018
of left ventricular pressure response to volume changes, H2044
lumped-parameter models, for characterization of embryonic aortic impedance, H19
of mass transfer in porous media of blood vessel walls, H464
microstructural model of perimysial collagen, H1576
of myocardial dilution of pure intravascular indicator, H2062
of Purkinje influence on pulmonary coronary activation sequences, H446
three-element windkessel model, H19
of vessel growth and collapsible pressure-area relationship, H2030

Monocytes
adhesion to endothelial cells, H634, H817

N^G-Monomethyl-L-arginine
and dynamic sympathetic regulation of blood pressure, H38
and intestinal microcirculation, H426
and skeletal muscle blood flow, H405

Monophosphoryl lipid A
effects on adenosine and 5'-nucleotidase levels during coronary occlusion, H945

Morphometry
in mesenteric small arteries with blood flow alteration, H1699
in rat, H1275

Muscle, cardiac
see also Cardiomyocytes; Heart, mechanics
calcium release, by cADP-ribose, H1082
calcium transients, rate-dependent abbreviation of, H695
contractility, H2428
contraction, energetics, with high potassium perfusion, H2343
cross-bridge model, H2044
extracellular ATP effects on, H1347
Frank-Starling mechanism in, H2428

glucose transporters, regulation in vivo, H1309
juxtaposition of arterioles and venules in, advantages of, H1003
length, and calcium sensitivity, H1068
mammalian, inhibitory action of endothetin isopeptides in, H119
myocardial fibers, in ventricular tachycardia, H1377

Muscle, skeletal
arterioles, vasoconstriction during myocardial infarction, H1502
blood flow, H2884
during exercise, in canine heart failure model, H2452
at rest and during exercise, nitric oxide and, H405
capillary filtration coefficient, prostacyclin and, in cat, H200
cooling, and muscle metaboreflex, H2436
flow-induced arterial dilation in, in rat, H2423
hydraulic conductivity in vivo, H2774
intramuscular pressure, simulation, H1587
ischemia-reperfusion, transitory changes in microvascular permeability during, H303
ischemia-reperfusion injury, leukocyte plugging and edema in, H989
ischemic preconditioning of, ATP-sensitive potassium channels in, H44
mechanical blood-tissue interaction, simulation, H1587
mechanics, finite-element simulation of, H1587
microvessels, response to acetylcholine release from motor nerves, H156
oxygen delivery to, in dynamic exercise, in humans, H1787
sympathetic nerve activity, temperature and, H2436

Muscle, smooth
coronary, heterogeneity of L-type calcium current density in, H2083

Myeloperoxidase
activity, and skeletal muscle ischemic tolerance, H44

Myocardial infarct/infarction
adenosine and 5'-nucleotidase levels during, H945
calcium-dependent outward current in myocytes from epicardial border zone in, H1386
heart rate control after, H2240
late preconditioning against, nitric oxide and, in rabbit, H2931
left ventricular function and remodeling after, in aging rat, H2652
size limitation, taurine depletion and, H1956
myocardial temperature and, H220 reduction, adenosine-mediated, H1677
vasoconstriction of skeletal muscle arterioles in, H1502

Myocardial ischemia
see also Ischemia-reperfusion; Myocardium, stunning
adenosine and 5'-nucleotidase levels during, H945
calcium transient alternans in, H2161

- collateral flow in, right atrial pressure and, H2296
contractile function during, inorganic phosphate and coronary perfusion pressure and, H566
glucose uptake in, insulin and, H2170
in hemorrhagic shock, energy metabolism and blood flow distribution in, H600
in humans, H902
low-flow reperfusion after, and leukocyte accumulation in rat coronary microcirculation, H1154
and oxidative phosphorylation through cytochrome oxidase, H1544
prolonged, bioenergetics during, H1452
regional, protective effect of taurine depletion in, H1956
repetitive, metabolism in, H1395
- Myocardium**
architecture, and electrophysiology, H446
atrial, contractile function, H2498
autocrine/paracrine regulation, in heart failure, H1727
bioenergetics, during prolonged ischemia, H1452
blood flow
distribution, in myocardial ischemia in hemorrhagic shock, H600
during exercise, in canine heart failure model, H2452
modeling, H2062
regional, H2296
bovine, ATP diphosphohydrolase in, H673
calcium currents, endurance training and, in rat, H1193
contraction, effect of cocaine and methyl-ecgonidine on, H893
dysfunctional, fatty acid uptake in, H2473
edema, defense against, H1408
endothelin-1 metabolism, H1239
energetics, H756
function, age-related changes in, H2652
growth, in volume hypertrophy, mechanical regulation, in rat, H1198
hypothermia, in acute myocardial infarction, protective effects, H220
ischemia-reperfusion injury, sodium/hydrogen exchange in, H2232
ischemic preconditioning, in humans, H902
mechanics, during ventricular filling, H1576
oxygen consumption, H756, H1977
after countershock, H583
in isolated rabbit heart, H1032
and pressure-volume area, in isolated canine heart, H1688
protection, in anoxia-reoxygenation, ANP and, H244
sarcoplasmic reticulum calcium ATPase, in heart failure, H12
senescent, high-energy phosphates in, H418
stunned
mechanical interaction with normal myocardium, H2146
ryanodine receptor dysfunction in, H796
stunning
late preconditioning against, H1651
- late preconditioning against, adenosine receptors in, H1324
repetitive, metabolism in, H1395
temperature
in acute myocardial infarction, H220
and contractile efficiency, H2891
ventricular, contractile function, H2498
- Myocytes**
cardiac, see *Cardiomyocytes*
ventricular, see *Cardiomyocytes*
- Myosin heavy chain**
isoforms, in tachycardia-induced heart failure, H921
- Myosin light chain**
phosphorylation, by stimulated neutrophils, H981
- N**
- Natriuresis**
in heart failure, H2372
- Natriuretic peptides**
see also Atrial natriuretic peptide; Brain natriuretic peptide
autocrine-paracrine role, in heart failure, H2406
and cardiac function, H2406
- C-type**
chronotropic and inotropic effects, H1933
gene expression in mouse uterus, regulation by estrogen, H2672
metabolism, in heart failure, H2372
in pressure-overload hypertrophy, H113
- Near-infrared spectroscopy**
of cerebral tissue oxygen saturation and blood volume, in newborn piglet, H682
- Neurohypophysis**
blood flow to, H1994
- Neurons**
A5 noradrenergic
α₂-adrenergic autoreceptors, H2290
autoactivity, H2280
persistent sodium current, H2280
subthreshold membrane potential oscillations, H2280
A6 noradrenergic, α₂-adrenergic autoreceptors, H2290
pontine
chemical inactivation, H1909
and 10-Hz rhythm in sympathetic nerve discharge, H1909
- Neuropeptide Y**
in rat iridial arterioles, H2119
release, from PC-12 cells, autoreceptor-mediated, H1737
- Neuropeptide Y receptors**
Y₂, in PC-12 cells, and neuropeptide Y release, H1737
- Neutrophils**
in myocardial reperfusion injury, adenosine-mediated cardioprotection and, H1677
phosphorylation of endothelial cell myosin by, H981
- Newborn**
brain injury, endothelin effects on ATP-sensitive potassium channel function after, H2639
cerebral tissue oxygen saturation and blood volume, near-infrared monitoring of, in piglet, H682
mammalian
- cardiomyocyte sodium/calcium exchange and contraction in, H837
hemodynamic effects of hemorrhage in, H339
respiratory control in, H1977
- NHE, see Sodium/hydrogen antiporter (sodium/hydrogen exchanger)**
- Nitric oxide**
see also Endothelium-derived relaxing factor
and arterial hemodynamics, H1816
in blood pressure regulation, H2756
and brain injury in newborn, H2639
and cerebral fluorocarbon-induced hypoperemia, H1994
in dynamic sympathetic regulation of blood pressure, H38
in endometrial blood flow regulation, H2009
- and endothelial cell expression of poly(I-C)-induced leukocyte adhesion molecules, H2481
- endothelium-derived, and sympathetic neurogenic constriction in intestinal microcirculation, H426
- and forearm blood flow at exercise onset and recovery, H2388
- in glutathione-induced coronary vasodilation, H1231
- in heat stress, in rat, H1537
- and hemodynamic effects of intracoronary vascular endothelial growth factor, H1317
- and hyperosmotic vasodilation in coronary microcirculation, H104
- and hypotensive effect of PDGF-BB, H1719
- in hypoxia-induced pial artery dilation, H1807
- in inhibition of cardiac hypertrophy by perindopril, H2659
- and late preconditioning against myocardial infarction, in rabbit, H2931
- and mechanical activity in spinal resistance-sized small arteries, H2217
- modulation of allograft myocardial function, H28
- and neurogenic pressor response of corpus cavernosum, H2141
- production
endothelial, flow-induced, H347
endotoxin-induced, estrogen and, H506
- in rat cremaster muscle microcirculation, anesthetics and, H618
- regulation of P-selectin expression in endothelial cells, H740
- in resistance vasculature, H1848
- and responsiveness of collateral-dependent coronary arteries, H1879
- in resuscitative effect of diaspirin cross-linked hemoglobin after hemorrhage in rat, H827
- and skeletal muscle blood flow, at rest and during exercise, H405
- synthesis
in cardiomyocytes, adenosine and, H59
in cardiomyocytes, cytokine-induced, H665
cerebrovascular, in pig, H2192
inhibition, and cardiovascular dynamics, H38
- and TNF-α-induced vascular barrier dysfunction, H2565

- Nitric oxide (continued)**
 in vasodilator response to histamine, H928
 vasodilatory response to, in microvessels, H76
- Nitric oxide synthase**
 aging-induced changes in, H1941
 cardiac, in hypertensive rat genetically prone to heart failure, H1223
 and cardiomyocyte contractile function, H1403
 endothelial age-dependent augmentation, in genetic rat model of heart failure, H1223
 gene transfer of, H265
 regulation, gender differences in, H1962
 endothelial cell, induction in exercise-trained pig, H2575
 inducible and cardiac allograft contractile and electrophysiological function, H28
 in cardiomyocytes, H665
 in cardiomyocytes, adenosine effects on, H59
 endotoxin-mediated expression, H164
 inhibition and cytokine-related vascular permeability, H2565
 and endotoxin-induced vascular permeability, H2565
 hypertension induced by, vascular responsiveness to α_2 -adrenergic stimulation in, H2756
 inhibitor, modulation of microvessel permeability, H747
 neuronal, and opioids, in hypoxia-induced pial artery dilation, H1807
 in signal transduction of microvascular hyperpermeability, H2442
- Nitrates** production, by cardiomyocytes, H59
- Nitroglycerin** and carotid diameter in humans, H1629
- N^G-Nitro-L-arginine methyl ester*** and endothelial cell adhesiveness, H740
- S-Nitroso-penicillamine** hemodynamic effects in rat, H1493
- Nitrosodilators** and microvascular relaxation, H76
- NMDA receptors, see *N*-Methyl-D-aspartate receptors**
- L-NMMA, see *N^G-Monomethyl-L-arginine***
- Norepinephrine** in antiarrhythmic effect of limb ischemia, H1707
 interstitial, and ventricular contractility, H1107
 microdialysis, in conscious rat, H2850
 and pulmonary artery contraction, in hypoxia, H1075
- Norepinephrine receptors** and G proteins, uncoupling, in rat aorta, H279
- Nuclear factor- κ B** and monocyte adhesion to endothelial cells, H634, H817
- Nuclear magnetic resonance spectroscopy** phosphorus-31 of intracellular pH during ischemia, H2257
- during prolonged myocardial ischemia, H1452
 in senescent myocardium, H418
 of substrate oxidation in heart of diabetic rat, H52
- 5'-Nucleotidase** levels, during coronary occlusion, H945
- Nucleus of solitary tract** Fos protein expression, and baroreflex sensitivity, H2200
- O**
- Opioids** in hypoxia-induced pial artery dilation, H1807
- Orthostatic stress** and cerebral autoregulation, H2209
- Osmoregulation** and myocardial ischemic injury, H1956
- Osmotic reflection coefficient** in epicardial transudation, H1408 mathematical modeling of, H997, H1049
- Ovary, see Rats, ovariectomy in**
- Oxidative phosphorylation** through cytochrome oxidase, in myocardial ischemia, H1544
- Oxidative stress** and endothelial dysfunction in smokers, H1644 and vasoreactivity in smokers, H1644
- Oxygen** and coronary autoregulation, H1299
- Oxygen consumption** cardiomyocyte, in renal hypertension, H1949
 myocardial, H756, H1977 after countershock, H583 in isolated rabbit heart, H1032 nonmechanical, estimation of, in isolated rabbit heart, H1032
- Oxygen delivery** to skeletal muscle, in dynamic exercise, in humans, H1787
- Oxygen-derived free radicals** *see also Superoxide* and cardiac neural stunning, in dog, H1569 and platelet-mediated vasomotor responses, H371
- Oxygen paradox** and cardiomyocyte protection by ANP, H244
- Oxyhemoglobin** cerebral, saturation, in newborn, near-infrared monitoring of, H682
- Oxyhemoglobin saturation** microvascular, cryospectrophotometric measurement, H2910
- P**
- Pacemaker** cardiac in diabetes, H1888 ionic channel antagonists and, H2155
- Pacemaker cells** atrial, diastolic sarcoplasmic reticulum calcium efflux in, H886 sinoatrial node, negative chronotropic effect of ryanodine on, ionic basis of, H2481
- Pacing protocol** and atrioventricular nodal facilitation, H1658
- Palmar hyperhidrosis** treatment, H1696
- Parasympathetic nervous system** cardiac effects circadian influences and, H1761 during exercise, in dog, H2135 monitoring, in conscious rat, H786, H2850
- Patch-clamp studies** of cardiac calcium currents, H250 of cardiac sodium channels, H1832 in guinea pig atrial cells, H1745 of potassium currents in adenosine-treated cardiomyocytes, H1637
- PECAM-1, see Platelet endothelial cell adhesion molecule 1**
- Pelvic nerve** stimulation, and pressor response of corpus cavernosum, H2141
- Perindopril** inhibition of cardiac hypertrophy, bradykinin-NO pathway in, H2659
- Peritoneum** hydrostatic pressure in, effects on in vivo hydraulic conductivity, H2774 IgG diffusion in muscle in, H2783
- Permeability** capillary cytoskeletal rearrangement and, H286 ET-1 and, in vivo, H1239 nitric oxide and, H2565 prostacyclin and, H200 vascular endothelial growth factor and, H687
- endothelial *see also Leukocyte-endothelial cell adhesion* under energy depletion, H608 platelets and, H2304
- microvascular nitric oxide synthase inhibitors and, H747 plasma protein osmotic pressure and, H997 signal transduction of, H2442 during skeletal muscle ischemia-reperfusion, H303 vascular endothelial growth factor and, H687
- vascular, assessment in normal human circulation, H1049 venular, in hypercholesterolemic rat, H854
- Persistent vegetative state** systolic blood pressure and interpulse interval in, H1291
- pH** intra- and extracellular, motor responses of cerebral vascular smooth muscle cells to, H434
- Phalloidin** effects on cardiac sodium channel availability and activation, H1832
- Phenylephrine** and aortic diameter in hypercholesterolemic rabbit, H1142 cardioprotection, in ischemia-reperfusion, H725 and carotid diameter in humans, H1629 inotropic response to, in neonatal rat heart, H1113

- response to, in uterine arcuate artery, during gestation and postpartum, in rat, H1148
- Pheochromocytoma (PC)-12 cells**
neuropeptide Y release
autoreceptor-mediated, H1737
regulation, H1737
- Phorbol 12,13-dibutyrate**
and inotropic responses of neonatal rat heart, H1113
- Phosphates**
see also Inorganic phosphate
high-energy
and myocardial bioenergetics during prolonged ischemia, H1452
in senescent myocardium, H418
- Phosphatidylcholine**
complexes with apoA-1, and arterial vasomotion, H1215
- Phospholamban**
and cardiac function
in mouse, H2826
in rat, H695
- Phospholipases**
PLD, activity in rat heart, ischemic preconditioning and, H1860
- Physical training, see Exercise training**
- Pigs**
cerebrovascular nitric oxidergic innervation, H2192
coronary arteries, endothelium-dependent relaxation, gender differences in, H2325
coronary vasculature, longitudinal position matrix of, H2832
endothelial cells, regulation of nitric oxide synthase and ET-1 in, gender differences in, H1962
exercise-trained, induction of endothelial cell nitric oxide synthase in, H2575
heart
myocardial metabolism in repetitive stunning, H1395
preconditioned, ventricular fibrillation in, H2804
heart failure model, myocyte load-contractility relationship in, H183
myocardium
stunned, mechanical interaction with normal myocardium, H2146
stunned, ryanodine receptor dysfunction in, H796
stunning, late preconditioning against, H1651
newborn
brain injury, endothelin effects on ATP-sensitive potassium channel function after, H2639
cardiomyocytes, sarcoplasmic reticulum function in, H192
cerebral hypoxia in, H333
cerebral tissue oxygen saturation and blood volume, near-infrared monitoring of, H333
cerebrovascular responses to epoxy-eicosatrienoic acid, H333
hypoxia-induced cerebrovasodilation in, H1807
skeletal muscle, ischemic preconditioning, ATP-sensitive potassium channels in, H44
- Placental insufficiency**
and fetal cerebral blood flow, H1994
- Plakoglobin**
in interendothelial cell adhesion, H2396
- Plasminogen**
gene-targeting studies, H2091
- Platelet-activating factor**
and endotoxin-induced acute-phase hypothesis, H164
- Platelet-derived growth factor**
A-chain transcription, in smooth muscle cells, H1415
BB isoform, hypotensive action of, H1719
in myocardial vascular smooth muscle cells, H628
- Platelet endothelial cell adhesion molecule 1**
and interendothelial adhesion, H2396
- Platelets**
aggregation, in postischemic venules of hypercholesterolemic rat, H854
diabetic, and vasomotor response, H371 and endothelial permeability, H2304
nitric oxide synthase activity in, cyclooxygenase inhibition and, H1854
- PMN, see Neutrophils**
- Polymerase chain reaction analysis**
of nitric oxide synthase mRNA expression, in aging rat, H1941
reverse transcription, in hypertrophied rat heart, H593
- Polymorphonuclear cells, see Neutrophils**
- Portal vein**
myocytes, cytosolic calcium, hindlimb suspension and, in rat, H2867
- Positron emission tomography**
of fatty acid uptake in dysfunctional myocardium, H2473
- Postpartum period**
uterine arcuate artery reactivity during, in rat, H1148
- Posture**
and cardiopulmonary interactions, H2857
age-related effects on, H2128
effects on blood pressure and heart rate, in humans, H2632
- Potassium channels**
see also Potassium currents
- ATP-sensitive
in brain stem autoregulation, H1342
in cardiomyocytes, priming effect of adenosine on, H1637
in cardioprotection by heat stress, H2458
in cerebral vessels, H878
in coronary artery, H2687
and coronary autoregulation, H1299
endothelial, and coronary microvascular hyperosmotic vasodilation, H104
function after brain injury, endothelin effects on, H2639
and heart rate, H2155
in ischemic preconditioning of skeletal muscle, H44
and myocardial reperfusion injury, H1677
in protein kinase C-mediated preconditioning of cardiomyocytes, H847
in vasodilator response to histamine, H928
and ventricular fibrillation in preconditioned pig hearts, H2804
- calcium-activated, and microvascular relaxation, H76
- cardiac
cisapride effects on, H2534
structure and function of, H511 and melatonin-induced constriction in cerebral arteries, H1530 modulation by PKC, in rat ventricle, H1775
- muscarinic ACh receptor-operated, in atrial cells, inhibition by endothelin, H1745
- in resistance vasculature, H1848 transient outward, and early repolarization in dog ventricle, H1096
- Potassium currents**
see also Potassium channels
inward rectifier, sevoflurane effects on, H324
- rapidly activating delayed-rectifier, cisapride effects on, H2534
- slow delayed rectifier
gating, extracellular sulphydryl group involved in, H208
structure-function relationship, H208
- transient outward, in rat ventricle, H1775
- Potassium ions**
and energetics of heart muscle contraction, H2343
- Power spectral analysis**
of arterial blood pressure, H786
of cardiac output, in spontaneously hypertensive rat, H66
of heart rate, H786, H1841, H2811, H2857
- Prazosin**
and aortic coarctation hypertension in rat, H2648
- Pregnancy**
autonomic function in, in rat, H1794
uterine arcuate artery reactivity during, in rat, H1148
uteroplacental vascular endothelial growth factor in, H938
- Prostacyclin**
and capillary permeability, H200
and cerebral microvascular responses to EETs, in neonatal piglets, H333
and endothelium-dependent relaxation in coronary arteries, H2325
- Prostaglandins**
endogenous histamine and, during ischemia, H2726
and mechanical activity in spinal resistance-sized small arteries, H2217
- Protamine**
and endothelial cell growth regulation, H2586
- Protein kinases**
- PKA
in coronary artery, H2687
effects on unloaded shortening velocity in myocardium, H2415
and troponin I phosphorylation in cardiomyocytes, H1440
- PKC
in α_1 -adrenoceptor-mediated inotropic responses of neonatal rat hearts, H1113
and brain injury in newborn, H2639
in ischemic preconditioning, H1637
and ischemic preconditioning of human myocardium, H902

Protein kinases (continued)

- and mitogenic signaling in vascular smooth muscle cells, H1920
- modulation of Kv4 potassium channels in rat ventricles, H1775
- and myogenic constriction of human coronary arterioles, H257
- and preconditioning of cardiomyocytes, H847
- in signal transduction of microvascular hyperpermeability, H2442
- stimulation, by ischemic preconditioning, H1860
- PKG, activity, and vasodilatory effect of nitric oxide, H76
- cGMP-dependent, see **Protein kinases, PKG**

Proteins

- membrane osmotic reflection coefficient in epicardial transudation, H1408
- and microvascular permeability, H997

- reflection coefficient, and vascular permeability, H1049

- tissue concentration profiles, H2783

Proteoglycans

- in rat tail tendon, and macromolecular mobility in interstitium, H2794
- and vascular wall mechanics, H952

P-selectin

- expression
 - in gene-targeted mice, H1903
 - nitric oxide regulation of, H740
 - and postischemic endothelium-dependent vascular reactivity, H2721

Pulmonary artery

- endothelin reactivity in pulmonary vasculopathy, H2549

Pulmonary artery pressure, see Pulmonary hypertension**Pulmonary hypertension**

- during chronic hypoxia, and cardiac expression of atrial natriuretic peptide, H411

Pulmonary vasculature

- response to isocapnic hypoxia, in humans, H1126

Pulmonary vasoconstriction

- hypoxic, H1075, H1126

Pulmonary veins

- endothelin reactivity in pulmonary vasculopathy, H2549

Purinergic receptors

- P₂, in cardiomyocytes, and inhibition of calcium currents, H250
- P2, stimulatory cardiac, H2380

Purkinje fiber cells

- and activity-dependent cerebral blood flow in rat, H1166
- ATP diphosphohydrolase in, H673
- influence on pulmonary conus activation sequences, H446
- in ventricular tachycardia, H1377

P value

- in cardiovascular research, H487

Pyruvate dehydrogenase

- activity, in intact heart, H1432

Q**Q-T interval**

- prolongation
 - cisapride-induced, H2534
 - left stellate ganglion stimulation and, H1696

Quinapril

- in volume overload-induced cardiac hypertrophy, H641

R**Rabbits**

- acute myocardial infarction in, myocardial hypothermia and, H220
- aorta
 - endothelium-dependent relaxation, ceruloplasmin effects on, H2843
 - wall characteristics, in early atherosclerosis, H1142
- atrioventricular node myocytes, electrotonic interactions in, H767
- baroreflexes, closed-loop identification of open-loop transfer characteristics of, H1024
- cardiac angiotensin II formation in, H1769
- femoral artery occlusion, angiogenesis with, H1255

heart

- atrioventricular nodal facilitation in, mechanism of, H1658
- CGP-48506 and EMD-57033 in, H2708
- heat shock preconditioning in, H2458
- left ventricular isovolumic relaxation, ejection and, H2696
- left ventricular pressure response to volume changes, H2044
- nonmechanical oxygen consumption, estimation of, H1032
- late preconditioning against myocardial stunning, adenosine receptors in, H1324

- with meningitis, cerebral autoregulation and hyperemia in, leukocytes and, H380

- myocardial ischemia in, calcium transient alternans in, H2161
- myocardial ischemia-reperfusion in, nitric oxide and, in rabbit, H2931
- newborn, cardiomyocyte sodium/calcium exchange and contraction in, H837

- pulmonary artery, norepinephrine-induced contraction, H1075

- spinal resistance-sized small arteries, dilation, nitric oxide and prostaglandin dependence, H2217
- ventricular cells, Wenckebach-like rhythms, transient outward current and, H1

Ras signaling pathway

- and mitogenic signaling in vascular smooth muscle cells, H1920

Rats

- aging
 - endothelial cell dysfunction in, H1941
 - left ventricular function and remodeling after myocardial infarction, H2652

aorta

- desensitization of norepinephrine receptor function in, H279
- dynamics, in hypertension and aging, H96
- regional differentiation, H1478
- aortic coarctation hypertension in, sympathetic nervous system and, H2648

- arterioles, acetylcholine-induced dilation, H1848

- autonomic nervous system, function, fluctuations in, H786

- baroreflexes, tonic inhibition by Fos protein, H2200

- blood conductivity measurement, as index of cardiac output, H2520
- cardiac angiotensin II formation in, H1769

- cardiac expression of atrial natriuretic peptide, during chronic hypoxia, H411

- cardiac hypertrophy in, and heat shock protein expression, H526
- cardiac muscle, glucose transporters, regulation in vivo, H1309

- cardiac output
 - blood conductivity measurement as index of, H2520
 - measurement, H2520

- cardiomyocytes
 - calcium handling after calcium overload, H573

- energy metabolism, H756
- metabolic downregulation, H756
- nitric oxide synthesis, adenosine and, H59

- sodium-bicarbonate cotransport in, H2596

- tetrahydrobiopterin synthesis, induction of, H665

- central cardiovascular effects of endothelin-1 in, H1177

- central TxA₂/PGH₂ receptors, vasopressin release by, H1927

- cerebral arteries
 - dilation by ATP and ADP, H1472
 - melatonin-induced constriction, H1530

- cerebral blood flow
 - activity-dependent, laminar analysis of, H1166
 - regulation, H878

- cerebral vascular smooth muscle cells, pH_i- and pH_e-induced vasomotion in, H434

- cremaster muscle, microcirculation, NO and EDHF in, anesthetics and, H618

- diabetes mellitus model, see **Diabetes mellitus, rat model**

- dietary sodium supplementation and angiotensin II administration in, synergistic vascular effects, H1275

- Eker, TSC2 gene product and, H1619
- endotoxin-induced cardioprotection in, H725, H1894

- forebrain parasympathetic control of heart activity in, H2926

- heart
 - atrioventricular contractile differences in, sarcoplasmic reticulum function and, H2498

- contractile function, stimulation frequency and, H1246
- contractile function during ischemia, inorganic phosphate and coronary perfusion pressure and, H566

- endocrine function, regulation by stretch and ET-1, H2678
- glucose uptake in myocardial ischemia, insulin and, H2170

- intracellular sodium concentration, stimulation frequency and, H1246

ischemic preconditioning, and intracellular pH during ischemia, H2257
 mechanical workload-myocardial water content relationship in, H271
 phospholipase D signaling in, ischemic preconditioning and, H1860
 protection against ischemia, heat stress and, H1333
 rate-dependent abbreviation of calcium transient in, H695
 reperfusion, ET-1 in, H1119
 heart failure model
 genetic, age-dependent augmentation of endothelial nitric oxide synthase in, H1223
 isopeptide-specific induction of myocardial ET-1 in, H1727
 plasma renin activity in, H228 and reflex control of heart rate and sympathetic nerve activity, H2580
 heart rate, control, after myocardial infarction, H2240
 heart ventriles, remodeling, angiotensin II inhibition and, H1824
 heat stress, hemodynamic adjustment to, nitrosoy factors and, H1537
 heatstroke, hemodynamic changes during, H2072
 hemodynamics, S-nitroso-penicillamine and, H1493
 hemorrhage, resuscitative effect of di-aspirin cross-linked hemoglobin after, H827
 hindlimb vasculature, nitric oxide-containing factors in, H228
 hypercholesterolemic, reperfusion injury in, H854
 hypertensive
see also Spontaneously hypertensive rats
 nitric oxide and arterial hemodynamics in, H1816
 hyperthyroid, cardiac hypertrophy in, renin-angiotensin system and, H593
 insulin-resistant JCR:LA-cp, postischemic cardiac performance in, H1187
 iridial arterioles
 electrical properties of, H2465
 neuropeptide Y in, H2119
 lung, microvascular leukocyte entrapment in, H2361
 macrovascular compliance in, PDGF BB isoform and, H1719
 mesenteric artery function, chondroitin-dermatan sulfate-containing proteoglycans and, H952
 mesenteric small arteries, structure, blood flow and, H1699
 microvascular ICAM-1 expression, H138
 myocardium
 calcium currents, endurance training and, H1193
 calcium handling by, extracellular ATP effects on, H1347
 growth in volume hypertrophy, mechanical regulation, H1198
 newborn
 A5 noradrenergic cells, H2280, H2290
 A6 noradrenergic cells, H2290
 heart, inotropic responses, H1113
 normotensive, nitric oxide and arterial hemodynamics in, H1816
 ovariectomy in

effects on endometrial blood flow, H2009
 and inducible nitric oxide production, H506
 pregnant, autonomic function in, H1794
 red blood cell aggregation and membrane structural correlates, H2604
 reflex hindlimb vasodilation, nitric oxide-containing factors and, H228
 resistance arteries, response to hypoxia and vasodilators, H869
 retrograde transneuronal viral labeling in, H2926
 SHHF/Mcc-fa^{op}, plasma renin activity in, H228
 skeletal muscle arterioles, vasoconstriction during myocardial infarction, H1502
 social stress-exposed, cardiac effects, H1754
 spontaneously hypertensive, *see Spontaneously hypertensive rats*
 transesophageal echocardiography in, intravascular ultrasound catheter for, H2078
 uterine artery, reactivity during gestation and postpartum, H1148
 vascular smooth muscle, α_{2D} -adrenergic receptor gene expression in, CRE-like response element and, H85
 ventricles
 Kv4 potassium channels, modulation by PKC, H1775
 transient outward potassium current, H1775
 ventrolateral medulla, serotonin changes in, during muscle contraction, H2899
Red blood cells, *see Erythrocytes*
Reentry
 reentrant wavefront instabilities induced by acetylcholine in, H356
 sympathetic and vagal effects on, H805
Renal sympathetic nerve activity
 in heart failure, H2664
Renin
 plasma, in heart failure, H228
 release, during exercise, in dog, H2135
Renin-angiotensin system
 in thyroxine-induced cardiac hypertrophy, H593
Reperfusion, *see Ischemia-reperfusion Research*
 cardiovascular, statistical problems in, H487
Resistance
 vascular, in women, H777
Resistance arteries
 functional behavior, chondroitin-dermatan sulfate-containing proteoglycans and, H952
 response to hypoxia and vasodilators during hypertension and high salt intake, H869
Resistance vessels
 dilation, acetylcholine-induced, H1848
 synergistic effects of high-sodium diet and angiotensin II administration on, H1275
Respiratory sinus arrhythmia
 estimation, H1012
Ryanodine
 and left ventricular function, in dog, H1561

negative chronotropic effect, ionic basis of, H2481
 and sarcoplasmic reticulum function, in neonatal swine cardiomyocytes, H192
Ryanodine receptors
 in atrial and ventricular myocardium, H2498
 dysfunction, in stunned myocardium, H796

S

Salbutamol
 and ion channels in guinea pig ventricular myocytes, H1669

Salt
 intake, and resistance artery response to hypoxia and vasodilators, H869

Sample size
 in cardiovascular research, H487

Sarcoplasmic reticulum
 calcium ATPase
 in heart failure, H12
 in neonatal swine cardiomyocytes, H192
 in stunned myocardium, H796
 calcium channels, in rat portal vein myocytes, H2867
 calcium handling
 after calcium overload, H573
 in defective chick heart, H1464
 in neonatal swine cardiomyocytes, H192
 in stunned myocardium, H796
 calcium uptake and myocardial contractile function, H2498
 in neonatal swine cardiomyocytes, H192
 and rate-dependent abbreviation of calcium transient in rat heart, H695
 in stunned myocardium, H796
 cardiac, calcium release, by cADP-ribose, H1082
 diastolic calcium efflux
 in atrial pacemaker cells, H886
 in calcium-overloaded myocytes, H886
 function
 in atria and ventricles, H2498
 sodium/calcium exchanger and, H2765
 and sodium/calcium exchange in cardiomyocytes, H1984

SCH-32615
 and natriuresis in heart failure, H2372

Selectins
 in postischemic venules of hypercholesterolemic rat, H854

Senescence, *see Aging*

Sepsis
 cardiomyocyte contractile function in, H1403

SERCA2, *see Sarcoplasmic reticulum, calcium ATPase*

Serotonin
 extracellular, in ventrolateral medulla, during muscle contraction, H2899
 in portal vein plasma and mesenteric lymph, during ischemia-reperfusion, H1135

- Sevoflurane**
effects on cardiac inward rectifier current, H324
- Sex steroid hormones**
and endothelium-dependent relaxation in coronary arteries, H2325
and regulation of endothelial nitric oxide synthase and ET-1, H1962
- Shear stress**
and endothelial nitric oxide production, H347
and interendothelial cell adhesion, H2396
in mesenteric small arteries, H1699
and microvascular blood flow resistance, H2272
in skeletal muscle arteries, H2423
in spinal resistance-sized small arteries, H2217
- Sheep**
fetal, cerebral circulation during hypoxia, H1994
heart, maturational changes in, H1977
heart failure model, natriuretic peptide metabolism in, H2372
- Shock**
circulatory, *see Shock, hemorrhagic*
endotoxic, tumor necrosis factor- α , in, H164
hemorrhagic
myocardial ischemia in, energy metabolism and blood flow distribution in, H600
resuscitative effect of diaspirin cross-linked hemoglobin in, H827
- Signal transduction**
 α_1 -adrenoceptor, and ischemic preconditioning in human myocardium, H902
in adult cardiomyocytes, H1044
calcium and, in myogenic response, H175
for hexose transport, in heart, H2170
mechanochemical, H175, H347
of microvascular hyperpermeability, H2442
phospholipase D, in rat heart, H1860
in vascular smooth muscle cells, H971
- Sinoatrial node**
cells, diastolic function, H886
C-type natriuretic peptide and, in dog, H1933
denervation
and aortic coarctation hypertension in rat, H2648
and autonomic control after acute exercise, H2738
pacemaker cells, negative chronotropic effect of ryanodine on, ionic basis of, H2481
sympathetic and parasympathetic outflows to, H2857
- Skin**
blood flow
angiotensin II and, H2620
autonomic control and, H1867
functional β -adrenoceptors and, H1038
- Sleep**
and cardiac effects of autonomic nervous system, H1761
- Smoking**
and baroreflex sensitivity in humans, H1555
- and endothelium-dependent vasodilation, H1644
- SNPEN**, *see S-Nitroso-penicillamine*
- Sodium-bicarbonate cotransport**
in cardiomyocytes, in adult rat, H2596
- Sodium/calcium exchange**
in cardiomyocytes
carbachol and, H1984
and contraction, in newborn rabbit, H837
in perfused rat heart, H1246
and sarcoplasmic reticulum function, H2765
- Sodium channels**
see also Sodium currents
cardiac
availability and activation, H1832
structure and function of, H511
in ventricular myocytes, calcium flux through, H128
- Sodium currents**
see also Sodium channels
persistent, in A5 noradrenergic cells, H2280
- Sodium/hydrogen antiporter (sodium/hydrogen exchanger)**
in ischemia-reperfusion injury, H2232
and negative chronotropic effect of ryanodine, H2481
- Sodium ions**
intracellular, in rat heart, stimulation frequency and, H1246
- Soleus muscle**
flow-induced arterial dilation in, in rat, H2423
- Spectral analysis**
in atrial fibrillation, H2811
of cardiac activity, H1427, H1761
in smokers, H1555
of cerebral autoregulation, H2209
in pregnant rat, H1794
- Spectroscopy**
optical, for measurement of microvascular oxyhemoglobin saturations, H2910
- Spinal cord injury**
rat model for, H1266
- Spine**
NMDA and AMPA receptors, and episodic hypertension in conscious spinal rat, H1266
resistance-sized small arteries, dilation, nitric oxide and prostaglandin dependence, H2217
- Spontaneously hypertensive rats**
arterial pressure in, after exercise, sinoatrial denervation and, H2738
cardiac output, dynamics of, H66
cardiac sympathetic tonus in, after exercise, sinoatrial denervation and, H2738
cardiomyocytes, troponin I phosphorylation in, H1440
endothelial nitric oxide synthase in, H1223
hemodynamic effects of exercise training in, H2627
resistance arteries, response to hypoxia and vasodilators, H869
vascular relaxation in, effects of cholesterol and atherogenic diets on, H647
- SQ-29548**
and nitric oxide synthase activity in human platelets, H1854
- Starling relationship**
assessment, in open- versus closed-chest mice, H2528
- Statistical error**
in cardiovascular research, H487
- Statistical power**
low, in cardiovascular research, H487
- Statistics**
use of, in cardiovascular research, H487
- Stellate ganglion**
left, stimulation, and Q-T interval prolongation, H1696
- Strain**
and aortic wall, in hypercholesterolemic rabbit, H1142
in midanterior canine left ventricle, H1968
and myocardial growth in volume hypertrophy, in rat, H1198
residual, H1968
ventricular wall, incremental, and incremental chamber pressure and volume, H2044
- Stress**
see also Shear stress
and aortic wall, in hypercholesterolemic rabbit, H1142
cross-fiber, in cardiac contraction, H1003
and myocardial growth in volume hypertrophy, in rat, H1198
social
arrhythmias during, in rat, H1754
electrocardiography during, in rat, H1754
heart rate variability during, in rat, H1754
and vascular wall mechanics, in resistance arteries, H952
ventricular wall, incremental, and incremental chamber pressure and volume, H2044
- Stretch**
and brain natriuretic peptide gene expression in heart, H2678
cell signaling in, H175
and heart failure with volume overload, H961
- Stroke work**
in heart failure, H1058
- Substantia nigra**
stimulation, cardiovascular depressor responses to, H2549
- Sudden death, *see Cardiac hypertension***
- Sulfhydryl group**
extracellular, in slow delayed rectifier current enhancement, H208
- Superoxide**
and cardiac neural stunning, H1569
endothelial dysfunction due to, in canine cerebral artery, H718
- Superoxide dismutase**
and late preconditioning against myocardial stunning, H1651
- Sympathetic nervous system**
see also Renal sympathetic nerve activity; Vagosympathetic interaction
activity, and intestinal microvascular endothelium, H426
and aortic coarctation hypertension, H2648
in blood pressure regulation, H38

cardiac afferent reflex, in canine model
of heart failure, H2664
cardiac effects
during exercise, in dog, H2135
interstitial norepinephrine and,
H1107
monitoring, in conscious rat, H2850
in rat, H786
in rat model of heart failure, H2580
sleep and, H1761
cardiovascular effects, angiotensin II
and, H2620
in central cardiovascular effects of endo-
thelin-1, in rat, H1177
control of vascular tone, in hibernating
hamsters, H148
discharge, 10-Hz rhythm in, pontine
neurons and, in cat, H1909
in heat stress, in rat, H1537
response to exercise, daily exercise and,
H1606
in TxA_2/PGH_2 -induced hypertension,
H734
visceral afferents, in ischemia, H1135,
H2726

Systemic vascular resistance
and isocapnic hypoxia, in humans,
H1126

T

Tachyphylaxis
in hemodynamic effects of intracoronary
vascular endothelial growth factor,
H1317
Taurine
and myocardial ischemic injury, H1956
Taxol
effects on cardiac sodium channel avail-
ability and activation, H1832
**TBARS, see Thiobarbituric acid-reac-
tive substances**
TCV-116
and ventricular remodeling in pressure-
overload hypertrophy, H1824
Temperature
myocardial, and contractile efficiency,
H2891
Testosterone receptors
blockade, after trauma-hemorrhage,
and organ function in males, H2919
Tetrahydrobiopterin
synthesis, inhibition, and endothelium-
dependent relaxation, H718
Thimerosal
effects on slow delayed rectifier current,
H208
**Thiobarbituric acid-reactive sub-
stances**
as index of oxidative stress, in smokers,
H1644
Thrombolytic
gene-targeting studies, H2091
Thrombosis
in transgenic mice, H2091
Thromboxane A₂
and nitric oxide synthase activity in hu-
man platelets, H1854
Thromboxane receptors
 TxA_2/PGH_2
prolonged activation, hypertension
during, H734
vasopressin release by, H1927

Thymeleatoxin
and inotropic responses of neonatal rat
heart, H1113

Tocopherol
and late preconditioning against myo-
cardial stunning, H1651
 α -Tocopheryl succinate
inhibition of monocyte adhesion to en-
dothelial cells, H634

Transesophageal echocardiography
in rat, intravascular ultrasound cath-
eter for, H2078

Transfer function analysis
of baroreflex, in brain death, H1291
of baroreflex inhibition by Fos protein,
H2200
of blood pressure regulation, in brain
death, H1291
of carotid sinus baroreflex open-loop
characteristics, in rabbit, H1024
in dynamic sympathetic regulation of
blood pressure, H38
of respiratory sinus arrhythmia, effect
of breathing pattern on, H1012

Transforming growth factor
 $TGF-\beta 1$, in myocardial vascular smooth
muscle cells, H628

Transgenesis
and cardiac contractile protein remodel-
ing, H2105
conditional, and cardiac contractile pro-
tein remodeling, H2105

Transgenic mice
see also Knockout mice
cardiovascular phenotypes, treadmill
exercise regimen for identifying,
H1595
cardiovascular physiology studies in,
H2528
catalase overexpression, and myocar-
dial protection, H1090
Transient outward current
and Wenckebach-like rhythms, in iso-
lated rabbit ventricular cells, H1

Trauma
testosterone receptor blockade after,
and organ function in males, H2919

Tronpon I
phosphorylation, in spontaneously hy-
pertensive rat heart, H1440

Tuberous sclerosis complex
cardiomyocyte DNA synthesis and,
H1619
characteristics, H1619

Tumor necrosis factor
effects on human microvascular endo-
thelial tight junctions, H286

Tumor necrosis factor- α
and capillary permeability, H200
and endothelial cell adhesion molecule
expression in gene-targeted mice,
H1903

in endotoxic shock, H164
and endotoxin-induced cardioprotec-
tion, H1894
and vascular barrier dysfunction,
H2565

Type II error
in cardiovascular research, H487

U

U-46619
effects on pressor response, in rat,
H1927

U-63557A

and nitric oxide synthase activity in hu-
man platelets, H1854

UL-FS-49

and heart rate, H2155

Ultradian rhythms

of cardiac output, in spontaneously hy-
pertensive rat, H66

Ultrasound

of brachial artery diameter, H1644
of carotid diameter in humans, H1629
intravascular catheter for, H2078
pulsed Doppler, in mouse, H494

Umbilical cord

compression, repeated, fetal cardiovas-
cular response to, H2351

Urodilatin

cardiomyocyte protection by, H244

Uterine arcuate artery

reactivity during gestation and postpar-
tum, in rat, H1148

Uterus

C-type natriuretic peptide gene expres-
sion in, regulation by estrogen,
H2672

V

Vagosympathetic interaction

in atrial fibrillation, in dog, H805
and left ventricular contractility, H534

Vagus nerves

*see also Vagosympathetic interac-
tion*

in atrial fibrillation, H805
control of heart, in rat, H2926
and heart rate, ionic channel antagonist
effects on, H2155

inhibition of atrioventricular conduc-
tion, in dog, H1800

stimulation, negative chronotropic ef-
fect on left ventricular contractility,
H534

Variance

in cardiovascular research, H487

Vascular cell adhesion molecule 1

cytokine-induced expression, inhibition
by N-acetylcysteine, H817
and leukocyte-endothelial cell adhesion,
H2490

Vascular endothelial growth factor

gene-targeting studies, H2091
hypoxia-induced expression, in myocar-
dial vascular smooth muscle cells,
H628

intracoronary delivery, hemodynamic
effects, H1317

and microvascular permeability, H687
regulation, H2224

uteroplacental, in pregnancy, H938

Vascular hyperplasia

blood flow and, H1699

Vascular hypertrophy

blood flow and, H1699

Vascular remodeling
*see also Heart ventriles, remodel-
ing*

arterial, H2030

in atherosclerosis, H1415
and platelet-derived growth factor A-
chain transcription in smooth
muscle cells, H1415

in pulmonary vasculopathy, H2549

in rat mesenteric small arteries, blood
flow and, H1699

Vascular smooth muscle

calcium, pressure dependence of, H175
contractile response, NOS inhibition and, H2756
in coronary circulation, heterogeneity of L-type calcium current density in, H2083
cytosolic calcium, hindlimb suspension and, in rat, H2867
 α_{2D} -adrenergic receptor gene expression in, CRE-like response element and, H85
effects of dietary sodium supplementation and angiotensin II administration on, H1275
heme oxygenase-1 gene expression in, H317
myogenic response cell signaling in, H175 in human coronary arterioles, H257
response to hypoxia and vasodilators during hypertension and high salt intake, H869
stereoselective S-nitrosothiol recognition sites, H1493
stress-strain relationship, in hypercholesterolemia, H1142
tone, control of, in hibernating hamsters, H148

Vascular smooth muscle cells

cerebral, pH_i and pH_e-induced vasomotion in, H434
growth, regulation, H2586
mitogenic signaling in, c-Ha-ras^{ED} modulation of, H1920
myocardial, hypoxia-induced vascular endothelial growth factor expression in, H628
PKC-dependent regulation of AT₁ promoter in, H655
vascular endothelial growth factor expression glucose and, H2224
hypoxia-induced, H628
vasopressin enhancement of cAMP stimulation in, H971

Vasoactive drugs

effect on carotid diameter in humans, H1629
Vasoconstriction
coronary, reduction of coronary flow oscillations, H2746
effects of dietary sodium supplementation and angiotensin II administration on, H1275

in mesenteric arteries, in hibernating hamsters, H148
myogenic cell signaling in, H175

in human coronary arterioles, H257
platelet-mediated, in diabetes, H371
in rat iridial arterioles, H2119
smoking-induced, H1644

Vasodilation

see also Vasorelaxation
coronary, norepinephrine-induced, adenosine in, H557
cumulative conducted, in single arteriole, H310
endothelium-dependent, in smokers, H1644
during exercise, H2186
hyperosmotic, coronary microvascular, ATP-sensitive potassium channels in, H104
in mesenteric arteries, in hibernating hamsters, H148
neurogenic, in rat hindlimb, H228
platelet-mediated, in diabetes, H371
triggered by motor nerves, H156
vascular endothelial growth factor-induced, uteroplacental, in pregnancy, H938

Vasomotion

chaotic agonist-induced, membrane ion transport and, H909

Vasopressin

enhancement of cAMP stimulation in vascular smooth muscle cells, H971 release by central TxA₂/PGH₂ receptors, H1927
during exercise, in dog, H2135

Vasoreactivity, see Vasoconstriction; Vasodilation; Vasorelaxation

Vasoregulation

in cerebral circulation, in rat, H434

Vasorelaxation

see also Vasodilation
ceruloplasmin effects on, H2843
endothelial nitric oxide synthase and, H265
in hypertension, hypercholesterolemia and, H647

Vector autoregressive modeling

for analyzing feedback regulation between heart rate and blood pressure, H478

Veins

α_{2D} -adrenergic receptor gene expression in, CRE-like response element and, H85

Ventilation

in isocapnic hypoxia, in humans, H1126

Ventral tegmental area

stimulation, cardiovascular depressor responses to, H2549

Ventricles

cardiac, *see Heart ventricles*

Ventricular fibrillation

in preconditioned pig hearts, H2804

Ventricular tachycardia

cesium-induced, H1377

Ventrolateral medulla

serotonin changes in, during muscle contraction, H2899

Venules

leukocyte accumulation in, low-flow reperfusion after myocardial ischemia and, H1154

postcapillary, ICAM-1 expression, in rat, H138

Verapamil

and energetics of heart beat with high potassium perfusion, H2343

Vinculin

in cardiomyocytes, effects of mechanical forces on, H546
phosphorylation, and endothelial barrier function, H608

Vitamin C

see also Ascorbate
and endothelial dysfunction in smokers, H1644

Vitamin E

and monocyte adhesion to endothelial cells, H634

Volume overload

and baroreflex sensitivity, H2580

W**Waterfall phenomenon**

in coronary collateral circulation, H2296

White blood cells, see Leukocytes**Z****Zinterol**

and ion channels in guinea pig ventricular myocytes, H1669

Author Index to Volume 42

A

Abe, K., H526
 Abe, Y., H1688
 Abu-Amarah, I., H339
 Acuff, C. G., H2672
 Adachi, T., H600
 Adair, T. H., H628
 Adam, A., H2263
 Adams, H. R., H2312
 Agarwal, P. G., H2018
 Aggarwal, R., H1386
 Aikawa, N., H600
 Akgören, N., H1166
 Akiyama, T., H1107
 Alexander, D. G., H28
 Alexander, J., Jr., H38, H534,
 H1024, H1107

Allen, D. G., H1246
 Allen, S. J., H1408
 Allo, S. N., H1956
 Ally, A., H2899
 Altschuld, R. A., H192, H1611
 Ambrosio, G., H647, H2843
 Anderson, D. C., H854, H1903
 Anderson, J. M., H286
 Anderson, P., H2652
 André-Fouët, X., H2804
 Anversa, P., H2508
 Anzai, T., H707
 Ao, L., H1894
 Aoki, T., H2361
 Apkon, M., H434
 Arad, M., H1707
 Arai, M., H113
 Araki, J., H2891
 Argenbright, L. W., H854
 Armstead, V. E., H740
 Armstead, W. M., H1807, H2639
 Armstrong, P. W., H1223
 Arnaudeau, S., H2867
 Arras, M., H1255
 Artman, M., H837, H1775
 Asmundsson, G., H2899
 Attramadal, H., H1727
 Auchampach, J., H1324
 Aukland, K., H2794
 Avazov, N., H1707
 Ayajiki, K., H2141

B

Bache, R. J., H1452
 Bagby, G. J., H164
 Bagby, L., H1956
 Bagiella, E., H1427
 Bahremand, F., H1595
 Bai, W., H2244
 Bakker, E. N. T. P., H1848
 Balcells, E., H961, H1769
 Balda, M. S., H286
 Ball, N., H2528
 Ballejo, G., H2648
 Baluk, P., H387
 Banba, N., H665
 Banda, M. A., H2721
 Banerjee, A., H725, H902,
 H1894
 Baran, D., H1509
 Barber, D. A., H1962, H2325
 Barman, S. M., H1909

Barry, W. H., H2765
 Baskurt, O. K., H2604
 Bassani, J. W. M., H886
 Bassani, R. A., H886
 Bates, D. O., H687
 Bates, J. N., H1493
 Battaglia, C., H647, H2843
 Battle, T., H1941
 Beaudoin, A. R., H673
 Beaulieu, P., H1933
 Beldhuis, H., H1754
 Bell, D. R., H303
 Bender, J. R., H286
 Berger, D. S., H2696
 Bergman, J. R., H2473
 Berkowitz, I. D., H380
 Bernardi, L., H1867
 Berry, K. L., H2186
 Bers, D. M., H886
 Bessho, M., H600
 Bishop, A. J., H295
 Bishop, S. P., H961
 Bishop, V. S., H1606
 Blaber, A. P., H2209
 Blais, C., Jr., H2263
 Bland, K. I., H2919
 Blum, M. S., H286
 Bo, H., H2857
 Bock, D. E. M., H303
 Boegehold, M. A., H426
 Boersma, E., H2146
 Bogdanov, K. Y., H1611
 Boittin, F.-X., H2867
 Bolli, R., H1324, H1651, H2931
 Bolton, P. B., H387
 Bonaccorsi di Patti, M. C., H2843
 Bond, M., H1440, H1432
 Bondar, R. L., H2209
 Bonnet, P., H1075
 Bonyhay, I., H1629
 Borch, K., H682
 Borg, T. K., H546
 Boron, W. F., H434
 Bosnjak, Z. J., H324
 Botney, M. D., H28
 Bowles, D. K., H2083
 Boyden, P. A., H1386
 Braas, K., H938
 Bremner, S. N., H2884
 Bridge, J. H. B., H2765
 Brochu, M., H1148
 Brooks, G., H1358
 Brotto, M. A. P., H1464
 Brower, R., H1049
 Brown, J. M., H1894
 Brum, P. C., H2627
 Brun, N. C., H682
 Bruneau, B. G., H2678
 Bryan, R. M., Jr., H1472
 Bunting, S., H1317
 Burgess, H. J., H1761
 Burgess, M. J., H446
 Burkhoff, D., H1509
 Burnett, J. C., Jr., H2406
 Burnstock, G., H148

C

Cabral, A. M. S., H96
 Cain, B. S., H902, H1894
 Calabrese, L., H2843

Calbet, J. A. L., H1787
 Calciati, A., H1867
 Camacho, S. A., H566
 Cameron, J. D., H2186
 Campbell, K. B., H2044, H2708
 Cappelli-Bigazzi, M., H647,
 H2843
 Cardinal, R., H1933
 Caringi, D., H2899
 Carmeliet, P., H2091
 Carmines, P. K., H1502
 Carrier, G. O., H76
 Carrozza, J. P., H1317
 Cartee, R. E., H961
 Castania, J. A., H2648
 Castighoni, P., H1555
 Cernacek, P., H1239, H2558
 Challah, M., H1941
 Champion, H. C., H928
 Chan, J. Y. H., H2200
 Chan, S. H. H., H1291, H2200
 Chandler, M. P., H2738
 Chang, K., H2565
 Charles, C. J., H2372
 Chartier, D., H128
 Chatham, J. C., H52
 Chaturvedi, R. R., H295
 Chaudhuri, G., H2009
 Chaudry, I. H., H2919
 Chen, H. I., H1816
 Chen, L., H1854
 Chen, P.-S., H356
 Chen, T. M., H2170
 Chen, X., H1737
 Chen, Y., H1090
 Chen, Z., H1032
 Cheng, C.-P., H1058
 Cheng, H., H1611
 Cheng, K., H317
 Cheng, Y., H1658
 Chernikova, D., H1427
 Cheung, J. Y., H1193
 Cheung, P.-Y., H1231
 Chiariello, M., H647, H2843
 Chiba, S., H1800
 Chien, K. R., H1368
 Childres, W. F., H1472
 Chou, T. M., H2078
 Christensen, G., H573, H1727
 Christensen, N. J., H2632
 Christodoulides, N., H317
 Chu, Y., H265
 Churchill, P. C., H2135
 Cioffi, W. G., H2919
 Ciriello, J., H540, H2549
 Clar, C., H1126
 Cleveland, J. C., Jr., H725,
 H902
 Clusin, W. T., H2161
 Coetzee, W. A., H837, H1775
 Cohen, M. V., H1324
 Cole, W. C., H128
 Collen, D., H2091
 Collins, H. L., H2613
 Collins, J. H., H2351
 Collins, T., H1415
 Colosimo, A., H1841
 Colyer, J., H695
 Consolini, A. E., H2343
 Cook, C. U., H418

E

Cooney, G. J., H1309
 Cordis, G., H1860
 Corman, B., H1941
 Cornelussen, R. N., H1333
 Costa, K. D., H1968
 Craft, N., H2128
 Crandall, C. G., H1038
 Cremers, T. I. F. H., H2850
 Cross, H. R., H2257
 Crowe, R., H148
 Csiky, B., H1275
 Curry, F. E., H687, H747

D'Angelo, G., H175
 D'Angelo, M., H2458
 Daoud, S., H673
 Dart, A. M., H1119, H2186
 Das, D. K., H1860
 Davidoff, A. J., H2876
 Davidson, B. L., H265
 Davis, M. J., H175
 Davisson, R. L., H1493
 Davy, K. P., H777
 Daye, R. M., H271
 De Boer, S. F., H1754
 De Bold, A. J., H2678
 De la Motte, C., H817
 DeLano, F. A., H1368
 Dell'Italia, L. J., H961, H1769
 Dellsperger, K. C., H257
 Delpach, M., H1075
 DeMeersman, R. E., H1427
 De Mey, J. G. R., H1699
 Deng, X.-F., H1113
 Derkx, J. B., H2351
 Desnoyer, R. W., H1432
 DeSouza, C. A., H777
 De Tombe, P. P., H2415, H2428
 Dhoother, S., H997
 DiBona, G. F., H734
 DiCarlo, S. E., H1606, H2613,
 H2738
 DiCorleto, P. E., H817, H2490
 Didion, S. P., H1502
 Dietz, R., H2580
 Dillon, R., H961
 DiMaggio, D. A., H1737
 Di Renzo, M., H1555
 Dorrington, K. L., H126
 Downey, H. F., H2296
 Drago, G. A., H695
 Drake, R. E., H997
 Drapeau, G., H2263
 Drenckhahn, D., H2396
 Drost, M. R., H1587
 Drzewiecki, G., H2030
 Du, X.-J., H1119
 Duckles, S. P., H1530
 Duncker, D. J., H1452, H2146
 Dunn, R. B., H228
 Dunphy, P. T., H2209
 Dupuis, J., H1239
 Durante, W., H317
 Duzic, E., H971

Edwards, D. H., H909
 Edwards, F. R., H2465
 Efimov, I., H1658
 Ehmke, H., H2240
 Ehsani, A. A., H405
 Eijgelsloven, M. H. J., H1452
 Eisenhofer, G., H2178
 Elliott, G. T., H945
 Emery, J. L., H1198
 Endoh, M., H119
 Enea, I., H647
 Entman, M. L., H494
 Eppichimer, M. J., H1903
 Erl, W., H634
 Erzurum, S. C., H2490
 Espiner, E. A., H2372
 Ettel, J. M., H1523
 Ettenson, D. S., H2586
 Etzel, R. A., H1038

F

Faber, J. E., H85
 Fahy, G. J., H1658
 Faivre, J.-F., H1082
 Fan, D., H2146, H2428
 Faraci, F. M., H265
 Farley, R. A., H2604
 Farr, D., H1968
 Faruqi, R. M., H817
 Faruqi, T. R., H817, H2490
 Fazan, R., Jr., H2648
 Fedinec, A. L., H333
 Feigl, E. O., H557, H1299,
 H2746
 Ferguson, T. B., H28, H2565
 Feuvray, D., H2596
 Fewell, J. G., H1595
 Field, L. J., H1619
 Field, S., H2030
 Figueiredo, V. M., H566
 Firek, L., H767
 Fishbein, M. C., H356
 Fisher, J. S., H405
 Fitzpatrick, L. A., H1962
 Fleck, E., H655
 Flessner, M. F., H2774, H2783
 Fogaca, R. T. H., H1464
 Forder, J. R., H52
 Forester, J., H2857
 Forrest, C. R., H44
 Forssmann, W. G., H244
 Fox, E. A., H387
 Francoeur, F., H1933
 Frangos, J. A., H347
 Fredricks, K. T., H869
 Freeman, G. L., H1561, H2333
 Freeman, R., H2209
 Friberg, P., H2178
 Friedman, E., H279
 Friedrich, M., H244
 From, A. H. L., H1452
 Fu, L.-W., H1135, H2726
 Fuchs, L. C., H76
 Fujii, K., H1342
 Fujinami, T., H2811
 Fukushima, M., H1342
 Fukuzawa, A., H2659
 Fung, Y.-C. B., H2832
 Furukawa, Y., H1800

G

Gaballa, M., H2652
 Gabel, J. C., H997
 Gabel, M., H921

Gabel, S. A., H2257
 Gaehrtgens, P., H2272
 Gagnon, R., H2001
 Gamboni-Robertson, F., H902
 Gandley, R. E., H952
 Gao, H., H734, H1927
 Gao, M., H707
 Gao, W. D., H1637
 Garnier, A. V., H1333
 Gava, N. S., H2627
 Geary, G. G., H1530
 Gebber, G. L., H1909
 George, A. L., Jr., H511
 Gervais, N., H2263
 Geurten, P., H1333
 Giles, T. D., H164
 Giles, W. R., H767
 Gintant, G. A., H2876
 Girouard, S. D., H1205
 Giuliani, A., H1841
 Giulumian, A. D., H76
 Giussani, D. A., H2351
 Gödéné, I., H618
 Godt, R. E., H1464
 Goekeler, Z. M., H981
 Goldman, S., H2018, H2652
 Golino, P., H2843
 Gong, G., H1949
 Gong, Q., H2534
 Gonska, B.-D., H250
 Gonzales, N., H2224
 Goodwin, G. W., H2170
 Goresky, C. A., H1239
 Goto, M., H2746
 Goto, Y., H583
 Gould, D. J., H2465
 Gracey, K. H., H2436
 Graf, K., H655
 Grände, P.-O., H200
 Granger, D. N., H854, H1903,
 H2721
 Green, H. W., III, H2708
 Greenberg, S. S., H164
 Greisen, G., H682
 Griffith, T. M., H909
 Grøgaard, H. K., H1727
 Grondin, G., H673
 Gruppelli, A., H1555
 Gross, S. S., H665
 Gu, J.-W., H628
 Guevara, M. R., H1
 Guihert, J., H1082
 Gulati, A., H827, H1177
 Gupta, R. C., H112
 Gurdal, H., H279
 Guth, P. H., H2009
 Guthrie, P. H., H2170
 Guterman, D. D., H257, H1569
 Guyenet, P. G., H2280, H2290

H

Haaparanta, M. T., H2473
 Haass, M., H2240
 Hacker, T. A., H1395
 Haddock, P. S., H837
 Hale, S. L., H220
 Halat, G., H2867
 Halliwill, J. R., H2388
 Hammond, H. K., H707
 Han, R. O., H2586
 Han, S. P., H1737
 Hankes, G. H., H961
 Hanley, D. F., H1994
 Harken, A. H., H725, H902,
 H1894
 Harris, A. G., H989

Harris, N., H854
 Hartley, C. J., H494
 Harvey, R. D., H1669
 Haskell, A., H387
 Hata, K., H945
 Hatcher, C. J., H1464
 Hathaway, C. A., H487
 Hattori, S., H665
 Hattori, Y., H665
 Haunstetter, A., H2240
 Hayano, J., H2811
 Hayashi, M., H593
 Hayashida, H., H2141
 Hayoz, D., H1867
 Hayward, R., H740
 He, P., H747
 He, W., H44
 Hebbart, L., H183
 Hegge, J. O., H796
 Heistad, D. D., H265
 Helmke, B. P., H2884
 Hempel, A., H244
 Henderson, J. D., H2857
 Hendriksen, O., H2632
 Hensley, J., H192
 Herlihy, J. T., H2333
 Hess, M. L., H861
 Heusch, G., H2452
 Hickner, R. C., H405
 Hicks, K. K., H1888
 Higashida, T., H138
 Higashiyama, A., H1032
 Hill, B., H148
 Hill, C. E., H2119, H2465
 Hill, N. S., H411
 Hirakawa, M., H2891
 Hiramatsu, O., H2746
 Hirashima, O., H1644
 Hironaka, K., H1142, H1824
 Hirst, G. D. S., H2465
 Hixenbaugh, E. A., H981
 Hoag, J. B., H2458
 Hofmeyer, T. G., H371
 Hohl, C. M., H192, H1611
 Hoit, B. D., H921, H2528
 Holt, E., H573
 Holycross, B. J., H228, H1223
 Holzmeister, J., H655
 Hongo, M., H1283
 Hool, L. C., H1669
 Hoppel, C. L., H1544
 Hopper, R., H44
 Hori, S., H600
 Hough, D., H356
 Hoyano, Y., H1800
 Hseu, S.-S., H1291
 Htun, P., H1255
 Hu, C. T., H1816
 Hu, F., H2558
 Hu, Q., H2083
 Huang, A. J., H981
 Huang, H., H2672
 Huang, L., H893
 Huang, Q., H2442
 Huang, Z. J., H464
 Huangfu, D., H2280, H2290
 Hughson, R. L., H2388
 Hume, K. M., H2436
 Hunt, B. E., H777
 Huson, A., H1587
 Hussain, M., H695
 Huyghe, J. M., H1587
 Hwang, T.-C., H2312

I

Ibayashi, S., H1342
 Ichihara, A., H593
 Iigo, Y., H138, H2361
 Ikeda, M., H1719
 Ikeda, T., H356, H2659
 Ikeda, U., H59
 Ikeda, Y., H534
 Ikenaga, H., H1502
 Inoue, S., H600
 Ishibashi, Y., H1452
 Ishide, T., H2899
 Ishigai, Y., H2659
 Ishiguro, Y., H893
 Ishimura, Y., H138, H2361
 Ishine, T., H2192
 Ishisu, R., H1688
 Ishizaka, H., H104
 Iso, T., H113
 Isoyama, S., H526
 Ito, W. D., H1255

J

Jacobs, H., H2272
 Jacobsen, A. N., H1119
 Jacobson, K. A., H501
 Jadoon, A. K., H2931
 James, J., H2105
 Jana, K. P., H2508
 Janigro, D., H878
 Janssen, B. J. A., H66, H1794
 Janssen, J. D., H1587
 Janssen, P. M. L., H2415, H2428
 January, C. T., H2534
 Jasperse, J. L., H2423
 Jayaweera, A. R., H2062
 Jenkins, S. L., H2351
 Jennings, G. L., H2186
 Jiang, J.-L., H501
 Jiang, M., H208
 Jiang, T., H1044
 Jin, F., H1619
 Johansson, M., H2178
 Johnson, A. K., H786
 Johnson, J. M., H1038
 Johnson, M. D., H279
 Johnson, T. D., H1472
 Johnson, W. H., Jr., H1769
 Jokkel, G., H1629
 Jonas, M., H1126
 Jones, A. W., H1879
 Jones, P. P., H777
 Joseph, K. O., H164
 Joyner, M. J., H2388

K

Kaasik, A., H2498
 Kabbara, A. A., H1347
 Kadowitz, P. J., H928
 Kajiyama, F., H2746
 Kajstura, J., H2508
 Kalenka, A., H2240
 Kampine, J. P., H324
 Kanagy, N. L., H2756
 Kaneko, F. T., H2490
 Kanese, Y., H1377
 Kang, Y. J., H1090
 Kao, R. H., H1223
 Kaplan, J. E., H2304
 Karagueuzian, H. S., H356
 Karch, J., H2062
 Karim, F., H1713
 Karlocak, K., H1629
 Kasai, K., H665
 Kasama, M., H1800

Kasemsri, T., H2639
 Kassab, G. S., H2832
 Kassam, M. S., H2209
 Katusic, Z. S., H718
 Kaul, S., H2062
 Kauser, K., H506
 Kawada, T., H38, H534, H1024, H1107
 Kawano, H., H1644
 Keef, K. D., H2687
 Keller, B. B., H19, H1523, H2861
 Kennedy, R. H., H1888
 Kenney, M. J., H1537
 Khachigian, L. M., H1415
 Khadour, F. H., H1223
 Khoo, M. C. K., H1012
 Kim, T.-S., H1012
 Kim, Y., H1761
 Kimura, A., H2746
 Kimura, T., H2192
 Kingwell, B. A., H2186
 Kinoshita, H., H718
 Kirkpatrick, R. D., H2044, H2708
 Kirouac, G. J., H540, H2549
 Kitazono, T., H1342
 Kitchens, H. L., H1909
 Kjekshus, H., H1727
 Klebanov, S., H2333
 Klein, R., H1707
 Klevitsky, R., H1595
 Klinger, J. R., H411
 Kloner, R. A., H220, H945
 Kloster, K. L., H487
 Knight, G., H148
 Knudsen, H. L., H347
 Knuuti, J. M., H2473
 Ko, E., H2078
 Kobayashi, S., H1824
 Kobayashi, T., H2899
 Kobori, H., H593
 Kogure, K., H113
 Kohno, K., H2891
 Kohno, M., H1142, H1824
 Kohrt, W. M., H405
 Koike, H., H1719
 Kollai, M., H1629
 Komukai, K., H1068
 Konishi, M., H1142
 Koo, E. W. Y., H2586
 Koob, T. J., H952
 Koolhaas, J. M., H1754
 Kooner, J. S., H2620
 Koskolou, M. D., H1787
 Kosoglou, T., H2372
 Kraegen, E. W., H1309
 Kram, R., H2146
 Kranias, E. G., H2826
 Krassioukov, A. V., H1266
 Krause, D. N., H1530
 Kregel, K. C., H786, H1537
 Krenz, N. R., H1266
 Kreuzer, H., H250
 Krieger, E. M., H96, H2627
 Kroll, K., H557, H1299
 Krüger, C., H2240
 Kubalak, S. W., H971
 Kübler, W., H2240
 Kugiyama, K., H1215, H1644
 Kuguoglu, A., H2155
 Kuhl, J. P., H1427
 Kuhn, M., H244
 Kukreja, R. C., H861, H2458
 Kumar, A., H1177
 Kuo, L., H104

Kuo, T. B. J., H1291
 Kupinski, A. M., H303
 Kurihara, S., H1068
 Kurokawa, K., H1719
 Kurosaki, K., H59
 Kurose, I., H854
 Kuwahira, I., H600
 Kwok, W.-M., H324
L
 Lagadic-Gossmann, D., H2596
 Laham, R. J., H1317
 Laher, I., H2248
 Lahourate, P., H1082
 Lai, T., H271
 Laine, G. A., H1408
 Lakatta, E. G., H1611
 Lam, C. F., H183
 Lamb, T., H2001
 Lambert, C., H1933
 Lamontagne, D., H2263
 Lanier, S. M., H971
 Lanting, L., H2224
 Lasley, R. D., H796
 Laughlin, M. H., H2083, H2423, H2575
 Laurita, K. R., H1205
 Lauritzen, M., H1166
 Laybutt, D. R., H1309
 Layne, B. H., H487
 Lazebny, W. D., H28
 Lear, W., H641
 Leblanc, N., H128
 Leckow, A. B., H1909
 Lee, J. S., H2062
 Lee, L.-C., H1291
 Lee, L. P., H2062
 Lee, T. J. F., H2192
 Leenen, F. H. H., H641
 Lefer, A. M., H740
 Lefer, D. J., H2721
 Leffler, C. W., H333
 Leiderer, R., H989
 LeJeune, W. S., H2565
 Le Prigent, K., H2596
 Lesch, M., H12
 Lesnfsky, E. J., H1544
 Levesque, F. P., H673
 Levitsky, S., H418
 Levy, M. N., H2155
 Lew, W. Y. W., H1403
 LeWinter, M. M., H1032
 Lewis, D. A., H1962
 Lewis, S. J., H234, H1493, H1537
 Li, B., H2508
 Li, G., H1090
 Li, J., H2481
 Li, J. K.-J., H2030
 Li, J.-M., H1358
 Li, Q., H2508
 Liang, B. T., H501, H847, H2380
 Liedtke, A. J., H1395
 Lin, M. T., H2072
 Lin, Y.-Y., H1291
 Lincoln, C., H295
 Lindner, J. R., H2062
 Lindner, V., H1415
 Lipsius, S. L., H886
 Little, S. A., H952
 Little, W. C., H1058
 Liu, H. H., H2072
 Liu, L., H805
 Liu, Y., H869, H1637
 Livingston, B., H192
 Lo, K. C.-L., H1

Loeb, A. L., H618
 Loesser, K. E., H861
 Lofthouse, J., H2774, H2783
 Lombard, J. H., H869
 Lompré, A.-M., H2498
 London, R. E., H2257
 Longhurst, J. C., H1135, H2726
 Longnecker, D. E., H618
 Lopez, J. J., H1317
 Lorenz, J. N., H2826
 Loufoua, J., H2804
 Lu, L., H2078
 Luke, D., H1761
 Luotoalahti, M. S., H2473
M
 Ma, R., H2664
 Ma, X.-L., H1677
 Machida, N., H961
 MacKenna, D. A., H1576
 Maddaford, T. G., H1187, H2232
 Maes, F. W., H1754
 Mahoney, E. T., H2436
 Maier, C., H2240
 Maier, L. S., H1246
 Maiorov, D. N., H1266
 Mäki, M. T., H2473
 Maldonado, C., H1324
 Maltsev, V. A., H1832
 Manchikalapudi, S., H2931
 Mancia, G., H1555
 Mancini, A. M., H1841
 Mandel, W. J., H356
 Mao, L., H1283, H1368
 Máseide, K., H2910
 Marban, E., H1637
 Mariigliano, V., H1841
 Márquez, M. T., H2343
 Martin, M., H128
 Massett, M. P., H1537
 Masuda, Y., H1745
 Mathias, C. J., H2620
 Mathiesen, C., H1166
 Matsubara, H., H2891
 Matsui, H., H2765
 Matsukawa, S., H478
 Matsumoto, K., H138
 Matsumura, T., H2125
 Matsuura, W., H534
 Matsuzaki, M., H1142, H1824
 Mattos, K. C., H2627
 Maulik, N., H1860
 May, C. N., H2620
 May, V., H938
 Mayhan, W. G., H1502
 May-Newman, K., H1968
 Mazgalev, T., H1658
 McClure, D. E., H271
 McConnell, B. K., H1440
 McCulloch, A. D., H1576, H1968
 McCully, J. D., H418
 McCune, S. A., H228
 McDonagh, P. F., H1154
 McDonald, D. M., H387
 McGregor, C. G. A., H1962
 McGuffee, L. J., H952
 McLaughlin, M. K., H952
 McLean, J. W., H387
 Mehta, J. L., H1854
 Meininger, G. A., H175
 Meiselman, H. J., H2604
 Meldrum, D. R., H725, H902, H1894
 Meng, Q. C., H961, H1769
 Meng, X., H725, H902, H1894
 Meno, J., H878
N
 Nadaud, S., H1941
 Nadler, J., H2224
 Nagai, R., H113
 Nagao, T., H1342
 Nair, R., H12
 Nakahara, T., H534
 Nakamura, M., H1688

Nakamura, T. Y., H1775
 Nakanishi, N., H665
 Nakano, T., H1688
 Nakaya, H., H1745
 Nakayama, Y., H2891
 Nakazawa, H., H600
 Nase, G. P., H426
 Natarajan, R., H2224
 Nathan, R. D., H2481
 Nathanielaz, P. W., H2351
 Nattel, S., H805
 Nayem, M. A., H861, H2458
 Negrão, C. E., H2627
 Neligan, P., H44
 Nellis, S. H., H1395
 Neumann, T., H2452
 Neunlist, M., H2817
 Newhouse, M. J., H2119
 Ng, W., H1595
 Nguyen, T.-S., H878
 Ni, Y., H938
 Nicholls, M. G., H2372
 Ning, X.-H., H1977
 Nishio, K., H2361
 Nitta, Y., H526
 Noll, G., H1867
 Noll, T., H608
 Norsk, P., H2632
 Nosek, T. M., H1464
 Nossuli, T. O., H740
 Nuutila, P., H2473

O

Obayashi, M., H1142, H1824
 O'Brien, W. E., H2192
 O'Dell, W. G., H1968
 O'Donnell, L., H286
 Ogasawara, Y., H2746
 Ogawa, H., H1644
 Ogawa, S., H600
 Ogino, K., H1509
 Oh, B.-H., H1283
 Oh, S., H1283
 Oheda, J.-I., H138
 Ohgushi, M., H1644
 Ohhashi, T., H2217
 Ohte, N., H1058
 Øie, E., H1727
 Okada, A., H2811
 Okada, K., H59
 Okamura, T., H2141
 Oldershaw, P. J., H295
 O'Leary, D. S., H2135
 Omata, M., H1377
 Omens, J. H., H1198, H1968
 O'Neill, C. A., H1135
 Onishi, K., H1688
 Ooboshi, H., H265
 Oosting, J., H66
 Oparil, S., H961, H1769
 Orchard, C. H., H695
 O'Rourke, B., H1637
 Osinska, H., H1595
 Oskarsson, H. J., H371
 Osol, G., H938
 Osterloh, K., H2272
 Osterziel, K. J., H2580
 Ota, Y., H1215
 Ou, L.-C., H411
 Out, I. C. M., H1794
 Ovize, M., H2804
 Oxman, T., H1707

P

Pagé, P., H1933
 Paik, M., H1427
 Pajak, L., H1619
 Paju, K., H2498
 Palakodeti, V., H1283
 Pallencaoe, E., H2832
 Palmer, B. M., H1193
 Pan, H.-L., H2726
 Pang, C. Y., H44
 Papaiya, N. N., H981
 Pappano, A. J., H1984
 Parati, G., H1555
 Pardi, R., H286
 Paré, H., H1148
 Park, S., H1223
 Parker, J. L., H1879
 Passino, C., H1867
 Patil, S., H2304
 Pawloski-Dahm, C., H921
 Pearlman, R., H387
 Peart, S., H2620
 Peeters, L. L. H., H1794
 Pelzer, D. J., H2539
 Pelzer, S., H2539
 Pennock, G. D., H2018
 Permutt, S., H1049
 Persson, P. B., H786
 Pervin, S., H2009
 Peterson, K. L., H1283
 Peyton, K. J., H317
 Pham, T. T., H494
 Philippe, M., H1941
 Piazza, L. A., H2678
 Piccirillo, G., H1841
 Pierce, G. N., H1187, H2232
 Pieske, B., H1246
 Pietras, L., H411
 Ping, P., H707
 Piper, H. M., H244, H608
 Podrasky, E., H2380
 Pollard, A. E., H446
 Ponce-Hornos, J. E., H2343
 Pop, C., H2804
 Popescu, L. M., H1860
 Poptic, E. J., H817
 Portman, M. A., H1977
 Possas, O. S., H234
 Postema, F., H2926
 Poucher, S. M., H1713
 Pourageaud, F., H1699
 Prabhu, S. D., H1561
 Price, E. M., H2575
 Pries, A. R., H2272
 Protter, A. A., H2372
 Przyklenk, K., H945
 Pu, J., H1386
 Pump, B., H2632
 Püschel, B., H2396
 Pyo, R. T., H28

Q

Qian, Y. Z., H861, H2458
 Qiu, Y., H1324, H1651, H2931
 Qu, J., H2481
 Quick, C. M., H2696

R

Rabinowitz, B., H1707
 Rademaker, M. T., H2372
 Ragni, M., H2843
 Ralevic, V., H148
 Ramos, K. S., H1920
 Rádegran, G., H1787

Rapps, J. A., H1879

Ray, C. A., H2436
 Raya, T. E., H2652
 Raymond, P., H2263
 Rebello, S., H1177
 Rebocho, M., H1075
 Redaelli, G., H2508
 Redfield, M. M., H2406
 Redington, A. N., H295
 Regitz-Zagrosek, V., H655
 Remmers, D. E., H2919
 Ren, J., H2876
 Reneman, R. S., H1333, H1629
 Renkin, E. M., H2794
 Renstrom, B., H1395
 Richards, A. M., H2372
 Richardson, B., H2001
 Rios, C. D., H265
 Rioufol, G., H2804
 Ritter, L. S., H1154
 Rivers, R. J., H310
 Rizvi, A., H2931
 Roach, R. C., H1787
 Robbins, J., H1595, H2105
 Robbins, P. A., H1126
 Robinson, K. A., H2696
 Robitelle, D. C., H1096
 Roden, D. M., H511
 Rofstad, E. K., H2910
 Rohn, D. A., H1408
 Roman, R. J., H869
 Rooney, W. D., H566
 Rose, C. P., H1239
 Rosenbaum, D. S., H1205
 Ross, J., Jr., H1283, H1368
 Rossi, N. F., H2135
 Rowland, R. T., H725, H902
 Rozek, M. M., H1561
 Rubanyi, G. M., H506
 Rubattu, S., H647
 Rubin, I., H1166
 Rubin, L. J., H2312
 Rudy, B., H1775
 Rudy, Y., H2105
 Rühle, U., H2240
 Rundqvist, B., H2178
 Russell, J., H1903
 Russell, J. C., H1187
 Russo, R., H647
 Ruzicka, M., H641
 Ryouke, T., H1824

S

Saari, J. T., H1090
 Sabbah, H. N., H12
 Sada, T., H1719
 Saeki, T., H1984
 Saito, T., H59, H1745
 Sakamoto, N., H1745
 Sakata, S., H2811
 Salafranca, M. N., H1854
 Salgado, H. C., H2648
 Salgado, M. C. O., H2648
 Saltin, B., H1787
 Samarel, A. M., H546
 Sandow, S. L., H2465
 Sang, J. C., H1478, H1484
 Saruta, T., H593
 Sato, H., H1677
 Sato, M., H971
 Sato, N., H767
 Sato, T., H38, H534, H1024, H1107

Saugstad, O. D., H682
 Schachter, D., H1478, H1484
 Schafer, A. I., H317
 Schaffer, S. W., H1956
 Schaper, W., H1255
 Schatz, A., H2832
 Schertel, E. R., H271
 Scheuermann, M., H2580
 Schlüter, M. D., H1432
 Schlüter, K. D., H244
 Schmid-Schönbein, G. W., H1368, H2884
 Schnellbacher, M., H1509
 Schnittler, H.-J., H2396
 Scholz, D., H1255
 Scholz, P. M., H1949
 Schrader, J., H756
 Schuhl, R. A., H740
 Schultz, D., H961
 Schulz, R., H1223, H1231
 Schwab, A. J., H1239
 Schwartz, G. G., H2078
 Schwartz, J. B., H2128
 Schweizer, M., H2240
 Scrimin, O. U., H2009
 Seals, D. R., H777
 Seasholtz, T. M., H279
 Secomb, T. W., H2272
 Segal, S. S., H156
 Seifen, E., H1888
 Sekioka, K., H1688
 Sellke, F. W., H1317
 Sen, A. P., H827
 Sementanin, E. M., H1368
 Seppet, E., H2498
 Serizawa, H., H2361
 Sévigny, J., H673
 Sezaki, K., H1377
 Sfyris, G., H1595
 Sgoifo, A., H1754
 Shanholtz, C., H1049
 Shao, Y., H921
 Shapiro, P. A., H1427
 Sharma, A. C., H827
 Sharp, W. W., H546
 Shen, J.-B., H1984
 Sheridan, B. C., H1894
 Shi, W., H2558
 Shibano, T., H2659
 Shih, C.-D., H2200
 Shimada, K., H59
 Shimizu, J., H2891
 Shimoda, S.-I., H665
 Shimoyama, H., H12
 Shimpo, M., H59
 Shishido, T., H38, H534, H583, H1107
 Shoemaker, J. K., H2388
 Shore, D., H295
 Shrier, A., H1
 Shroff, S. G., H2696
 Shuba, Y. M., H2539
 Sicotte, B., H1148
 Sieck, G. C., H1962
 Siegel, R. A., H2128
 Silverman, E. S., H1415
 Silverstein, S. C., H981
 Simard, A., H1239
 Simon, G., H1275
 Simons, M., H1317
 Simpson, D. G., H546
 Singh, G., H827
 Singh, R., H2009
 Sipkema, P., H1003, H1848
 Skalak, R., H2884

- Skarsgard, P., H2248
 Skyba, D. M., H2062
 Slaaf, D. W., H1587
 Slabe, T. J., H1544
 Slangen, B. F. M., H1794
 Slater, A. J., H380
 Sleigh, J. W., H2857
 Slinker, B. K., H2044, H2708
 Sloan, R. P., H1427
 Smiseth, O. A., H1727
 Smith, F. G., H339
 Snoeckx, L. H. E. H., H1333
 Soei, L. K., H2146
 Solin, O. H., H2473
 Song, Y., H1977
 Sonnenberg, D., H506
 Soonpaa, M. H., H1619
 Soubrier, F., H1941
 Sperandio, M., H2272
 Spinale, F. G., H183
 Spitzer, K. W., H446, H767, H2765
 Spooner, P. H., H2018
 Stadnicka, A., H324
 Stahl, L. K., H1606
 Stambaugh, K., H501
 Stanley, G., H2128
 Stauss, H. M., H786, H2580
 Steenbergen, C., H2257
 Stein, F., H2209
 Steinbauer, M., H989
 Steinberg, S. F., H1044
 Steinhelper, M. E., H2672
 Stennett, R., H1509
 Stephenson, D. G., H1347
 Stepp, D. W., H557, H1299
 Stewart, D. J., H1239
 Stewart, R. H., H1408
 Stimers, J. R., H1888
 Stingley, R., H1994
 St-Louis, J., H1148
 Straeter-Knowlton, I. M., H961
 Straznicka, M., H1949
 Struijker-Boudier, H. A. J., H66
 Stubenitsky, R., H2146
 Stuessé, S. L., H2155
 Stumpe, T., H756
 Sturek, M., H1879, H2083
 Su, X., H961
 Suematsu, M., H138, H2361
 Suga, H., H2891
 Sugimachi, M., H38, H534, H1024, H1107
 Sugiyama, S., H1215
 Sullivan, P. M., H28, H2565
 Sumitani, M., H96
 Summers, B. M., H228
 Sun, J.-Z., H1651
 Sunagawa, K., H38, H534, H1024, H1107
 Sunahara, R. K., H317
 Suzuki, H., H593
 Suzuki, K., H2361
 Suzuki, M., H1058
 Suzuki, S., H2891
 Suzuki, T., H113, H1754
 Suzuki, Y., H2361
 Sylvester, J. T., H1049
 Szwarc, R. S., H295
- Tajima, M., H526
 Takaki, H., H1024
 Takaki, M., H2891
 Takano, H., H2931
 Takashi, T., H138
 Takenaka, T., H593
 Tanaka, H., H767, H777, H1688
 Tanaka, N., H1368
 Tandler, B., H1544
 Tang, X.-L., H1324, H1651, H2931
 Tanigawa, T., H1142, H1824
 Tanimura, M., H12
 Tansley, J. G., H1126
 Tarbell, J. M., H464
 Tchou, P. J., H1658
 Teague, R. A., H997
 Teisman, A. C. H., H2850
 Tenstad, O., H2794
 Terano, T., H2115
 Ter Horst, G. J., H2926
 Terracio, L., H546
 Thompson, A. L., H1309
 Thurston, G., H387
 Tinney, J. P., H2861
 Toda, N., H2141
 Todd, J. C., H1677
 Tofukuji, M., H1317
 Tolley, J., H854
 Toninelli, E., H286
 Tønnessen, T., H1727
 Tosaki, A., H1860
 Toyoda, K., H1342
 Travis, M. D., H1493
 Traystman, R. J., H380, H1994
 Tremblay, J., H1933
 Trifan, O. C., H1860
 Trinder, J., H1761
 Tse, J., H506, H1949
 Tseng, G.-N., H208
 Tsujioka, K., H2746
 Tsukube, T., H418
 Tsumura, H., H2361
 Tune, J. D., H2296
 Tung, L., H2817
 Turkaly, J., H1544
 Turrens, J. F., H1651
- U
- Uchida, T., H356
 Ueda, Y., H1688
 Ugurbil, K., H1452
 Umehoto, E. Y., H387
 Umehoto, S., H1142
 Undrovinas, A. I., H1832
 Unger, T., H2580
 Unno, N., H2351
- V
- Valdivia, C., H796
 Valdivia, H. H., H796
 Van Bibber, R., H557
 Van Breemen, C., H2248
 Van der Vusse, G. J., H1333
 Vandier, C., H1075
 Van Donkelaar, C. C., H1587
 Van Gilst, W. H., H2850
 Vankan, W. J., H1587
 Van Pelt, R. E., H777
 Van Waggoner, D., H1658
 Vaplon, S. M., H1576
 Varma, D. R., H1113
- Vega-Saenz De Miera, E., H1775
 Veksler, V., H2498
 Venneman, I., H2263
 Ventura-Clapier, R., H2498
 Véras-Silva, A. S., H2627
 Verbalis, J. G., H1927
 Verdouw, P. D., H2146
 Verotta, D., H2128
 Videbaek, R., H2632
 Vinge, L. E., H1727
 Vinent-Johansen, J., H1677
 Vis, M. A., H1003
 Vlasica, K., H2696
 Vogel, J., H2520
 Voipio-Pulkki, L.-M., H2473
 Volpe, M., H647
 Von zur Mühlen, F., H250
 Vork, M. M., H1333
- W
- Wada, A., H113
 Wada, T., H478
 Wagner, B. P., H1994
 Wakabayashi, Y., H138
 Wallick, D. W., H2155
 Walsh, R. A., H921, H2528
 Wambi, C., H718
 Wang, H.-Y., H279
 Wang, P., H2919
 Wang, W., H2664
 Wang, X., H1962, H2508
 Wang, Y., H183
 Wang, Z., H183
 Wannenburg, T., H2428
 Warberg, J., H2632
 Warburton, R. R., H411
 Wardemann, C., H634
 Warnecke, C., H655
 Watanabe, Y., H1745
 Watkins, M. W., H1032
 Weaver, L. C., H1266
 Webb, J. G., H971
 Weber, C., H634
 Weber, P. C., H634
 Weber, R., H1867
 Weber, T. J., H1920
 Weed, R. A., H434
 Weiner, M. W., H566
 Weiss, H. R., H1949
 Welch, W. J., H734, H1927
 Welsh, D. G., H156
 Wentworth, R. A., H2351
 Wenzel, R., H1867
 West, G. A., H878
 Westenbroek, C., H1754
 Westerhof, N., H1003
 Westerink, B. H. C., H2850
 Westfall, T. C., H1737
 White, P. A., H295
 White, P., Jr., H1049
 White, R. E., H76
 Wiig, H., H2794
 Wilcox, C. S., H734, H1927
 Wilderman, M. J., H1807
 Willenbrock, R., H2580
 Williams, A. J., H1415
 Williams, J. L., H487
 Williams, M. A., H1994
 Williamson, J. R., H2565
 Wilson, D. A., H380, H1994
 Winecoff, A. P., H76
 Winkler, B., H1255
 Winn, H. R., H878
- Z
- Zakaria, E. R., H2774, H2783
 Zaniboni, M., H767
 Zeng, M., H747
 Zhang, J., H971, H1452
 Zhang, R.-S., H2009
 Zhang, Y., H1452
 Zhao, L., H945
 Zhao, Z.-Q., H1677
 Zhong, J., H2312
 Zhou, H.-Z., H566
 Zhou, J., H286
 Zhou, Y.-Y., H1611
 Zhou, Z., H2534
 Zhu, Y., H119
 Zion, A. S., H1427
 Zucker, I. H., H2664
 Zwas, D., H1509
 Zweifach, B. W., H2884
 Zygmunt, A. C., H1096
- T
- Taegtmeier, H., H2170
 Taffet, G. E., H494



